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THE NEUROSES

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To
MY WIFE

PREFACE

It is hardly an exaggeration to say that the neuroses constitute the most ill-defined and least understood clinical entities in the whole domain of medicine. Despite the great light shed by Professor Freud and the profound insight into the psychopathology of the neuroses vouchsafed by psychoanalysis, a great many of the problems are still debatable and others entirely obscure. In addition there are two definite camps, the somatists and psychopathologists, the followers of which wage constant war in the belief that each defends the citadel of truth. But even those who espouse the psychologic approach to the subject are engaged in strife among themselves and in the heat of battle some of the combatants so far forget themselves as to make use of the weapons of their adversaries. This is particularly true of those opposed to psychoanalysis. The result of this want of unanimity, aside from the extent and importance of the subject, is that a tremendous literature has grown up, with which even the specialist can barely cope. It is extremely difficult, therefore, to embody in one small volume the views of various "schools" and do justice to them, and at the same time give expression to a personal adaptation of those views.

In my Text-book of Clinical Neurology I included a brief chapter on the neuroses. This has received favorable comment from many colleagues and has been honored by personal appreciation of Professor Freud. Although the chapter contains little that is original, it represents none the less an individual approach, and I have been led to believe that it gives a fair and clear, but too condensed, view of the subject. I have therefore been urged to expand, for the purpose of

better elucidation and more complete information, the brief chapter into a fair sized volume. This book is the result.

The views expressed in this work are based on clinical experience derived from active contact with patients, supplemented by the study of normal and abnormal psychology. The book is intended for medical students and practitioners, and it is hoped that it will not fail of appeal to students of academic psychology who would augment their practical and theoretical knowledge by a judicious combination of both. I hope, too, that the brief description of clinical cases scattered throughout the text in illustration of various syndromes will add to their understanding.

Despite training in the field of neurology, whose roots reach deeply into anatomy, physiology and pathology, and the emphasis of scientific medicine on the somatic or organic point of view, I have adopted the psychologic approach to the neuroses. For reasons which will appear in the text, I have come to believe that psychopathology offers at this time the best understanding of the neuroses. And while I have not failed to discuss the organic, that is, the physiologic, neurologic, endocrinologic and social-biologic views of the etiology of the neuroses, I have more or less consistently adhered to psychopathology in the study of causes and the treatment of patients. So, too, in order to acquaint the student with the views of the various schools I outlined briefly their salient features and critically compared them with the psychoanalytic method which has been, in the main, adopted in this book.

The subject of the neuroses is so extensive that I thought it best to limit the book to their consideration and not to include the psychoses. Abnormal psychology stresses, indeed, the similarity of mental mechanisms in the neuroses and psychoses; clinically they represent quite distinct entities. But it is true that in order to understand thoroughly the neuroses one should have a sound knowledge of psychiatry. I have, therefore, emphasized many psychiatric facts in the chapter on

differential diagnosis. Similarly, I paid more than passing attention to organic neurologic and other medical conditions which may lead to diagnostic errors. To add further to the practical value of the book I included a brief chapter on taking a psychiatric and neurologic history and making a mental examination. Because mental retardation and various intelligence defects occasionally offer diagnostic difficulties I appended one chapter on General Intelligence, Mental Level, and The Psychoneuroses and another on Psychometric Tests, for both of which I am indebted to my brother, Dr. David Wechsler. Finally, to stimulate cultural interest in the most fascinating branch of medicine I included a brief introduction to the history of psychiatry and a critical review of the development of psychopathology.

I thought it best not to distract the attention of the reader with literary foot-notes or citations in the text of references to authors. But I have appended a list of references on which I leaned rather heavily and which the student who would know more of the subject would do well to read. To the numerous other authors whose works I consulted without giving due credit in the text I wish to acknowledge my sincere indebtedness. I want to thank most heartily Dr. Louis Casamajor for his critical reading of the manuscript and to express my cordial appreciation of the consistent kindness of the publishers.

I. S. WECHSLER.

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THE NEUROSES

CHAPTER I

INTRODUCTION

THE HISTORY OF PSYCHIATRY

In recording the annals of mankind historians generally divide history into great epochs and date major periods from outstanding persons or events. Medical historians follow a similar tradition. Together with others Farrar divides the history of psychiatry into four periods: The first, or primitive, dates from ancient times and ends with Pythagoras; the second, or Golden Age, begins with the greatest of the Asclepiades, Hippocrates, and ends with Galen; the third, or period of darkness, which he attributes entirely to the influence of the Church, he extends into the eighteenth century, long after the Renaissance freed the minds of man in art and science; the fourth, or modern period, is but of yesterday. In my opinion the history of the mind, to which psychiatry properly belongs, does not permit of such epochal, horizontal stratification. One may adhere to convenient division into periods provided only that one is constantly aware of the slight influence a few centuries have on the actual progress of the human mind. Man is still primitive in many of his ways, and a touch of madness still makes the whole world kin. The human animal persists in thinking in terms of religion, magic, and prayer in matters of health and social organization. Psychotherapy still bears the imprint of primitive thought, and the modern cultist is the twin brother of the old medicine man. Despite

the great progress which psychiatry has made it is considerably more of an art than a science, while the armchair psychologist is only now being banished. The growth of this, perhaps the most important branch of medicine, has been painfully slow, retarded alike by religion and philosophy, but mainly by the primitiveness of man's emotions and the rigidity of human thought.

The beginnings of psychiatry, like those of medicine, go back to the dawn of human civilization and are lost in hoary antiquity. Indeed it is probable that what would today go under the name of psychotherapy is older than medicine itself. Primitive man was the plaything of forces which he could not fathom, and he shrank before their mysterious powers. The savage mind was guided by fear during its waking hours and mystified by dreams and nightmares while asleep. Out of these he developed the notion of spirits and gods. He projected ideas from the depths of his soul onto the forces around him and animated things with the vague meanings which lurked in his primitive mind (*animism*). He could make no distinction between himself and the outer world, so that the spirits which he created in the image of his own inchoate thoughts were but the echoes of his sleeping dreams or waking fears. He learned very early to distinguish between good and evil influences, which he at first attributed to the spirits around him and later to the gods which he also created in his own image. When his experience accumulated sufficiently to become continuous and his mind could link in some way cause and effect, primitive man began to grope for concrete ways of averting threats to his weal. Out of these magic was born and folklore grew. With magic he could meet the distant threats of fellow men or the evil influences of the spirits, propitiate the good or avert the evil. He began to worship forces and animals and later their forms, or fetishes. He besought the aid of spirits to fertilize the soil, to make rain, to bring crops, to increase potency and fecundity, to prevent drought and

blight and, finally, to prevent disease or restore health. Out of all this came the sorcerer and seer, the hero and priest and medicine man, generally personified in a single individual of the group. He began to practise black and white magic, the former to bring about disease and death, the latter to avert them. This was the birth of therapy, primitive psychotherapy. Totems and taboos grew up for the purpose of averting "perils to the soul" of the savage, with disease and death as penalties for infraction upon rigid custom. As he became more civilized primitive man stratified the world of supernatural agents into gods, devils, and demons. Religion and medicine were fused and so were the priest and medicine man. Even where herbs and simples were used, spells and rituals served to give them efficacy. Thus all healing was psychic even where physical means were employed. At a later date the shaman (*shamanism* being a stage beyond polytheism) followed tradition in the practice of mental healing. Such were the prototypes of the later faith healer, except that they had less guile and were more honest than their descendant through the ages.

In the early *Sumerian* and later *Babylonian* medicine (The Code of Hammurabi dates back to 2500 B.C.) the priest-physician raised medical lore to the dignity of a system. Disease was now regarded as the definite work of demons swarming in the air, water, and earth. Later when a more philosophical conception of the soul was evolved the Babylonians assigned its seat to the liver. Incantation was still the chief weapon of therapy, though medicine and surgery grew apace. The *Egyptians* improved considerably their medical wisdom and anticipated by more than two millenia the modern tendency to specialization to such an extent that they had a special physician for every disease. The cult was altogether in the hands of the priests and magic still the main source of healing power. Amulets (an Arabian word) and talismans, which embody, in part, the notion of divine or supernatural

influence, later came to be used for warding off sickness and other threats. The notion of insanity as a disease was not conceived of, though the state of melancholia was known. The oldest prescription found in Egypt tells of the use of green stone for fumigation against hysteria. In later times bezoars (enteroliths or other concretions) were used to prevent melancholia.

The early *Jews* took their medicine from the Egyptians, Babylonians, Chaldeans and Assyrians, but they laid considerably less stress on demons, and in the Bible, the priest is more of a sanitarian than a physician. Disease was definitely attributed to the wrath of God while healing was the function of the Lord. The idea of punishment finds utterance in the words of Moses: "The Lord shall smite thee with madness, and blindness, and astonishment of the heart." (Deuteronomy XXVIII, 28.) Saul became mad because he disobeyed divine injunctions; wherefore "the spirit of the Lord departed from him and an evil spirit from the Lord troubled him." He seems to have had manic depressive insanity, as shown by his fits of excitement and depression, his suspiciousness, violence, and tendency to homicide. His spirit of prophecy and final suicide fit in with his psychotic mentality. Simulation is already known, as witness David's feigning insanity. So, too, was the therapeutic effect of music, seeing how the shepherd prince tried, not very successfully, to soothe his mad king with the harp. A further advance is marked in the conception of Daniel that dreams are visions of the mind or brain. He knew, too, how to interpret dreams to his own purpose, as Joseph learned several centuries before him. The former relates that Nebuchadnezzar believed himself to be an ox (lycanthropy, *v.i.*). It would seem that mental contagion is also foreshadowed, because the Bible tells how the spirit of the Lord came upon the messengers Saul sent to kill David. One after another they turned to prophecy. Altogether, while early Jewish medicine reflected that of their

neighbors and therapy consisted essentially of sacrifice, prayer, magic, incantation, and exorcism, the Pentateuch is almost entirely free from the notion of demonology, and physicians were not quite the holy priests. Somehow the priests always had a difficult time among the Jews. Even in later years the influence of spirits was not quite so strong as among their neighbors who took the other world much more seriously than the Jews did.

Among the *Greeks*, before the Golden Age, notions more or less similar to those prevailing among other peoples held sway. They supposed that the insane and those who suffered from fits or hysterical seizures enjoyed visitations of the deities; wherefore such persons were venerated as demi-gods (saints). Conforming to the notion that the protecting deity of one tribe might conveniently be regarded as the devil of another, visitations were sometimes assigned to evil spirits. Thus, *Daemon*, who was a guardian angel among the Greeks, became the devil in late Christian daemonology, and instead of inspiration from God, as in primitive times, the insane in the middle ages were conceived of as possessed by the devil. *Apollo*, the chief presider over healing, was also called *Alexikakos*, the averter of ills. Though epilepsy was known as the *morbus sacer* it also went by the name of *morbus Hercules*. Legend relates that Juno, the wife of Jupiter, did not like his son, Hercules, so she sent him the madness by the hand of Lyssa. Euripides describes almost typical seizures in the "Phrenzy of Hercules:" Rolling eyes, clouding of consciousness, frothing and foaming at the mouth, violent fury with destruction of persons in his way, falling, writhing, followed by sleep and complete amnesia. In Greek mythology the hero, too, plays the doctor, and physician and priest are not as closely identified as among the Egyptians.

Aesculapius, the son of *Apollo* and the nymph *Coronis*, became the patron saint of physicians following his death at the hands of *Pluto* who felt that the purveyor of healing kept

too many shades out of Hades. Temples of health (*asclepieia*) were built in his honor at Cos, Epidaurus, Cnidus and Pergamus. Aesculapius left two children, Hygeia and Panacea, whom he had by Epione. In the temples officiated physician-priests who cured essentially by means of prayer, sacrifice and purification. To these places came pilgrims in search of health and sojourned there for days or weeks, the temples thus becoming the first hospitals of antiquity. These sanctuaries are of psychiatric interest because of the *Temple Sleep* or "*incubation*" to which they gave rise. During the waking hours the sick pilgrim was attended by the physician-priest in the guise of a god who administered treatment or advice to drive out disease; at night the votary of Aesculapius came to the patient in his dreams and communicated prescriptions to be followed on arising. A votive offering naturally was expected in return for the blessings of health, which sanctifies with tradition the fees of the modern physicians.

With *Pythagoras* (582-504 B.C.) a new era slowly began to dawn. He had traveled far and wide and knew of the priestly therapeutics of Egypt. There he acquired knowledge of metempsychosis (transmigration of souls) which he introduced into his native land. Without attempting to cure disease, he advocated, as a true philosopher would, the Diet of the Soul to keep healthy. He began his day leisurely with a stroll, attended with music to bring harmony to the spirit and dissipate the languor of sleep. Afterward he repaired to the temple where he discoursed, taught, and learned; then followed games, dances, and a frugal mid-day meal. Leisurely attendance to affairs, walks, and a cold bath filled in the day. At dinner meat and wine were partaken of sparingly. The evening was taken up with a social hour, conversation, and reading. The day ended, as it began, with music to soothe the tired senses to sleep. Thus he exemplified the *mens sana in corpore sano*. Pythagoras evidently knew that the brain is the organ of man's higher activities. *Alcmaeon*, his pupil,

actually taught that the brain is the organ of thought and that it gave origin to nerves. The philosophers held that all patients were accessible to reason, hence put no emphasis on restraint.

Hippocrates, the father of medicine, (460–370) was born into the Golden Age of Pericles, the contemporary of Socrates, Phidias, Praxiteles, Sophocles, Euripedes, Aristophanes, Herodotus, and Thucydides. He learned his medicine in the Aesculapian temple at Cos, but soon broke with the past and began to create new paths for the science of healing. He denied the sacred origin of disease and looked everywhere for natural causes. Of epilepsy he said that ignorance and wonder make it divine, but in truth it is no more sacred than other diseases. He observed that trephine and accidental wounds on one side of the head gave rise to convulsions on the other side of the body. He taught that “the brain exercises the greatest power in man. By the same organ we become mad and delirious, fear and terror assails us . . . dreams, untimely wandering . . . all these things we endure from the brain when it is not healthy, but is more hot, more cold, more moist, more dry than natural.” Though Hippocrates made no distinction between febrile or transitory deliria he described mania, melancholia and dementia, which he interpreted as the result of disturbances in the four humors: yellow bile, black bile, blood, and mucus, giving, respectively, dryness, moisture, heat, and cold. With regard to hysteria he taught that the uterus wandered in search of humidity and that it exerted pressure on other organs, thereby giving rise to symptoms; thus, pressure on the vessels of the head resulted in coma, on the heart it caused palpitation, and on the lungs dyspnea. His greatest contribution to psychiatry was his recognition that mental disorders had natural causes, requiring treatment like other diseases. This acute observer did not fail to notice the influence of heredity and predisposition on mental disease.

Greek medicine, which has been aptly designated as "metaphysiological," continued unchanged for several centuries. The asclepiadae did not give up the temple element while accepting the sound teachings of Hippocrates. Aristotle retarded psychiatry, rather than advanced it, by his conception of the entelechies as the intermediaries between the body and soul, which he located in the heart. Herophilus continued the wise knowledge of Hippocrates and added to the knowledge of the brain and spinal cord which he dissected. The Alexandrian school merely reflected the wisdom of Greece. The Graeco-Roman period was barren of advances, though *Celsus*, in the time of Tiberius, wrote on various forms of insanity.

Areteus of Cappadocia, who lived in the time of Domitian and Hadrian (born 80 A.D.?), first distinguished clearly between cerebral and spinal paralysis and pointed out the decussation of the pyramids in the medulla oblongata. He it was who first suggested the fusion of mania and melancholia, anticipating Kraepelin by eighteen hundred years. He described correctly varieties of insanity, epilepsy, hysteria, and apoplexy. *Areteus* developed further the Hippocratic concept of hysteria. He taught that the womb was an animal within an animal, that it moved in all directions, delighted in fragrant odors which it approached, and fled in aversion from bad odors. In its peregrinations it choked up bodily passages and gave rise to divers symptoms. He speaks thus of melancholia: "It is a lowness of spirit, from a fixed and simple phantasy, without fever; and it appears to me that melancholy is the commencement and a part of mania. For in those who are mad the understanding is turned sometimes to anger and sometimes to joy, but in melancholics to sorrow and despondency only." He thought that mania was the severer affection, distinguished it from simple delirium and "delirium" of old age (senile psychosis), vaguely foreshadowed dementia (precox?), and spoke of cures and remissions. *Areteus*, and so

did his contemporary *Soranus*, described "phrenitis," or acute delirium, with fever, hallucinations, mumbling, unintelligible speech, conversation with imaginary persons, excitement, tremor of the hands, carphologia (grasping aimlessly at objects), staring eyes, etc.

With *Galen* (131–201 A.D.) the great Hippocratic epoch comes to a close. He described the dura and pia mater, the corpus callosum, the third and fourth ventricles of the brain and iter, the hypophysis, seven cranial nerves, and the sympathetic system, and produced experimental paralysis by sectioning the spinal cord. Though he formulated the fanciful theory that the blood contained "natural spirits" and the liver "vital spirits" which were converted into "animal spirits" in the brain, he stated, "I believe that the brain is at once the seat of the voluntary movements, of the intelligence, of feeling, and of memory." Of his contribution to psychiatry one may mention his distinction between primary and secondary mental affections and of his classification of causes into physical and mental, such as injuries to the head, alcoholic excess, shock, fear, adolescence, menstrual changes, reverses of fortune, and disappointment in love. Galen was intensely religious and thereby vitiated many of his otherwise clear notions on psychiatry. To offset this, *Caelius Aurelianus*, a pupil of Soranus, had thorough understanding of the insane, was full of sympathy for them, urged humane treatment, and denounced as mad those who used violence or restraint. Numerous literary writers among the Romans contributed satires on psychiatric subjects; and *Suetonius* wrote of the mental disorders of the Caesars and of their vices.

After the death of Galen heavy clouds of superstition and mysticism began to gather and the spirit of darkness hovered over the face of the earth. The Church was not yet strong enough to lay the heavy hand of dogma on human thought, so that for a century or two a flicker of light was still to be seen; but false empiricism and church dogma waxed until

medicine became rigid and petrified into a system which persisted for more than a millenium. Here and there a spark of intelligence appeared on the medical horizon, but it was immediately snuffed out by monastic vigilance and inquisitorial terror. Demonology was enthroned more securely than at any time in history, supernaturalism held full sway, the body was deemed unworthy and in need of chastisement or torture, the spirit and the soul alone mattered, and the evidence of the senses was ignored or despised. Man became the prize of demons and spirits for whose possession and the glory of the Lord they waged eternal battle. Hallucinations, beatific visions, and spectres combined to turn the times into a psychotic age. Monastic medicine became utterly and completely theurgic. Monasticism, with its frustrated and occasionally perverted sexuality, bred delusional and hallucinatory visions which nursed a hysterical into a mad age. Vampires, succubi, and incubi began to swarm in the air, man and animal alike were their prey, and *lycanthropy* (possession by an animal) became part of the flesh and blood of believers. The Church Fathers solemnly affirmed that werewolves (humans turned beasts) frequented dead cemeteries and devoured children, and that the insane became werewolves. Holy monks described the vile and depraved sexual orgies of those possessed during sleep, evidently giving expression to personal hallucinatory gratifications in dreams. It is related that in later centuries madmen, believing themselves to be lycanthropes, took to deserted places, howled and prowled, did acts of violence and behaved after the manner of werewolves. Damsels would awake screaming at night that incubi possessed them, exhibiting stigmata or *witches' marks* (ecchymoses, dermatographia) to prove assault; devils and witches infested the air, the world became a large mad house. The Church seemed to be possessed by a religio-erotic mania in its attempt to cleanse the spirit and purify the soul. Under the aegis of Pope Innocent the

Eighth two Dominican friars, Sprenger and Institor, published the *Malleus Maleficarum*, "Witches' Hammer," as a guide book for inquisitors. Erotic ecstasy, sexual perversion, bestial refinements, the Devil's Sabbath, and other abominations found masochistic and sadistic expression.

To add to the confusion and degradation of the human mind epidemics, such as leprosy, cholera, the Black Death (plague), scurvy (*ignis sacer*, *St. Anthony's fire*) appeared and reappeared during the dark ages. The year one thousand, hearing the apocalyptic allusion to the end of the world, allowed vent to pent up emotions and orgies of the flesh. The epidemics of the Crusades and other sadistic explosions followed in waves, and the Saracens answered with Holy Wars. The syphilitic plague and witches' mania came in turn. Flagellation epidemics, tarantula dances, chorea or "dancing mania" (the prototypes of our own revivalist meetings) were symptomatic ("psychotic reflex") of the age. (St. Vitus dance got its name from the procession of dancing patients of Strassbourg to the chapel of St. Vitus in Zabern.) Meanwhile nobody in authority thought of mental disease as sickness and hospitals for epileptics or insane were unknown, despite the fact that general hospitals were founded as early as the fourth century (the asclepieia or pagan temples were really the earliest hospitals) and a hospital for lepers is mentioned by Gregory of Tours (circa 560).

Here and there a voice cried out in the wilderness, but it was neither heard nor heeded, or promptly choked if it was. During the Byzantine period *Alexander of Tralles* (525-605) wrote correct accounts of insanity. *Paulus Aegineta* (625-690) urged a return to reason, pointed out that lycanthropy was a dream or nightmare, interpreted hysteria correctly and treated it humanely as he would melancholia, but nobody listened. He urged rational treatment with diet and sedatives, but the enthronement of demoniac religion then and subsequently preferred to deal with *melancholia canina* with scaffold

and dungeon, fagot or rack. *Arabian medicine* left practically no impress on psychiatry. While the Nestorian Christians, who fructified Arabian medicine, showed independence of thought by insisting on using "mother of Christ" instead of "mother of God" and were banished for their heresy, the Arabs evinced no fresh insights into the nature of insanities. Neither Avicenna (980-1036), nor Avenzoar (d. 1162) called the "greatest" Cordovan physician, nor Maimonides (1135-1204) had anything worth while to say, although the latter wrote on matters of sex and hygiene for Saladin. The philosopher Averroes (1126-1198), however, denied immortality. *Henri de Mondeville* (1260-1320), alone in his age, seemed to have understood the meaning of psychotherapy: "Keep up your patient's spirit by music of viols and ten-stringed psaltery, or by forged letters describing the death of his enemy, or by telling him that he was elected to a bishopric, if a churchman."

Although the light of the Renaissance and the Reformation was slow to illumine the field of psychiatry, reason at last dared to raise her head. Copernicus and Gallileo did not live or Bruno die in vain. *Andreas Vesalius* (1514-1564), the great anatomist, rejected the prevailing view that the brains of animals differed from that of man, and thereby became the first comparative psychologist. *Franciscus Sylvius* (1614-72) advocated the treatment of mental disease with moral suasion and drugs. While Le Sage poked fun at the pompous medical ignoramus of his day, Moliere exposed their follies unmercifully. In *Monsieur de Porceaugnac* two physicians are bribed to declare a man insane and in *Malade Imaginaire* there is an excellent description of a hypochondriac. The first hospital for epileptics was founded in Alsace in 1486, but the disease was still regarded as contagious. In 1547 a monastery was converted into an insane asylum and St. Mary of Bethlehem (Bedlam) came into being.

But the man who stirred medical thought in the first half of the sixteenth century was a mystic and bold spirit, a scholar and charlatan, an alchemist and astrologer, an acute observer, a capable physician, a generous man and a drunkard, a man who was hounded and revered, and finally died in a brawl. *Paracelsus*—Aureolus Theophrastus Bombastus von Hohenheim (1493–1541)—was born in Switzerland and studied medicine at Ferrara where he got his degree in 1515. He traveled all over Europe, learned a good deal of folk medicine, became professor at Basle in 1527, taught that disease was caused by astral influence, and finally took up the mysteries of alchemy. He honored and revered Hippocrates, but showed independent courage and contempt for tradition by publicly burning the works of Galen and Avicenna. He taught that “the *Archaeus* (the force of nature, vital principle) is the essence of life, contained in an invisible vehicle, the *Mumia*, and in diseased conditions this *Mumia* must be magnetically extracted from the patient’s body and inoculated into plants.” (Garrison.) He also formulated the doctrine of the *quinta essentia* (the five entia) as the causes of disease, among which was the *ens spirituale*, or psychic cause. It will be seen, therefore, that Paracelsus was really the first man who stumbled over the idea of body magnetism which after Mesmer became hypnotism.

Felix Plater of Basle (1536–1614) probably was the first modern physician who made a scientific attempt to classify mental diseases. He described fairly accurately insanity in a variety of patients and called attention to obsessions. He also distinguished between acquired, congenital, and hereditary conditions and urged humane treatment of the insane. *Th. Bonnet* (1620–1689) began to insist that insanity is a disease and paid no attention to demons, magic, or miracles. It was he, together with *Willis* and *Morgagni*, who laid the foundation for the correlation of anatomy with clinical facts and definitely ascribed insanity to disease of the brain. In 1682 *Thomas*

Sydenham wrote his classic description of hysteria in the *Dissertatio Epistolaris*. But while speaking of it as a disease of the nervous system he said it was a disorder producing "animal spirits." Meanwhile both the Church and the philosophers retarded the study and development of mental science, the former by insisting that the priest is the physician of the soul and the latter, as Kant did later, by asserting that the philosopher is a better judge of abnormal mental states than the physician. Descartes, it will be recalled, taught that the human body was a machine directed by a rational soul located in the pineal gland. The ideas of morality and soul and that man was a microcosm could not yet be downed, but the awakening finally did come and modern psychiatry was born about one hundred and fifty years ago.

William Cullen (1712-1790) contributed much to the systematization of psychiatry, classifying mental diseases into mania, melancholia and dementia, the innate or congenital, senile and acquired. In his *Derangements of Intellectual Functions* he stated that insanity was a morbid state of the mind and that "judgment is determined by sensation, and volition is the effect of judgment." However, he advocated restraint and chastisement of the insane. *Chiarugi* (1759-1820) went a great step beyond Cullen. He was the first Italian physician to advocate and put into practice kindness and sanitary measures in the treatment of the insane. He built the first modern hospital in Florence intended for insane patients not for criminal derelicts. In 1794 *William Tuke* built a Quaker retreat for the insane at York and reformed Bedlam, in a measure anticipating the methods introduced by Pinel.

For many centuries the insane had been beyond the protection of society and to a great extent even outside the pale of the law. It was the custom either to put them in jail, keep them confined at home, or allow them to roam at large. Mild cases or harmless patients were neglected, turned vaga-

bond, or roamed around on the fringe of communities; others became, as in the case of Scotland, wizards and warlocks. Violent ones were put in prison to be caged, chained or manacled and dealt with as criminals. They were generally exposed to violence, ridicule and abuse, treated as animals in a menagerie, and on Sundays or holidays exhibited by the keepers for a fee to the gazing populace.

When *Philippe Pinel* (1745–1826) came to Bicêtre the state of the insane was revolting beyond description. Men and women covered with filth and vermin were chained and confined to small, damp, cold, dark, narrow cells of stone, unfit to be used as kennels for animals. They slept on beds of straw, were given wretched food or forced to thrive on plain bread and water. They were exposed to the raillery, indignity, and brutality of convict keepers. The howling madmen in clanking irons were often filled with rage and despair and occasionally committed ferocious assaults on their brutal attendants. Pinel struck off the chains from the insane, separated convicts from madmen, did away with many abuses, among them blood-letting and drugging, introduced leniency, and literally opened the doors to let in light. He showed unusual courage by introducing these reforms, risking his life during the days of the Terror. He made possible the study of insanity, and in 1801 published his great work, *Traite medico-philosophique sur l'alienation mentale*. From Bicêtre he went to the Salpêtrière where he introduced similar reforms. *Esquirol* followed his master at the latter institution, improved upon his humane ways and wrote his great treatise in 1838. In this connection one may finally mention *Daniel Hack Tuke* and *John Connolly* who persistently advocated the “open-door” treatment of the insane without restraint.

But the budding science of psychiatry during the first half of the nineteenth century was not yet free from the influence of religion and metaphysics. Wordy battles raged between the somatists, who held that mental affection was a disease

of the brain, and the spiritualists who affirmed that it was a disease of the soul. *Heinroth* (1773–1843), whose observations and classification were otherwise noteworthy, was the last of the spiritualist school to maintain the medieval religious views. He taught that sin was the cause of madness and faith and repentance the cure. To his dying day he adhered to the notion of possession by Satan or God and fought the humane advances of Pinel. Not until *Wilhelm Griesinger* (1817–1868) came upon the scene were the evil influences of Heinroth eradicated. It may be said that Griesinger wrote the first modern book, *The Pathology and Therapy of Psychic Disorders*, 1845, wherein he embodied his clinical observations, following the sound classification of Pinel and Cullen, his physiologic and pathologic studies, and psychologic analyses of mental states. He also urged the erection of special psychiatric clinics, which have since become part of every advanced institution for the study and care of the insane. It is altogether likely that the appearance of Charles Darwin's *Origin of Species by Means of Natural Selection*, in 1859, finally swept away every vestige of mysticism from psychiatry as it did in every other field of science. In America *S. Weir Mitchell* (1830–1914) built special military hospitals for nervous diseases and later erected separate wards in Turner's Lane Hospital of Philadelphia. His greatest contribution was the introduction, in 1875, of the now famous "rest treatment" of nervous patients, which consisted of strict confinement to bed, the use of opium, massage, electricity, and a special dietary regimen. *Emil Kraepelin* (1856–1926) may be said to be the last and, in a measure, the greatest of descriptive psychiatrists. His keen observations, power of description and classification, his contributions to the study of manic-depressive psychosis, which he finally unified into a comprehensive entity, his studies of dementia precox, and his great scholarship set him apart from his numerous contemporaries. He died without yielding to the advances of the more modern

analytic, dynamic psychology. *Eugen Paul Bleuler* (b. 1857), the great Swiss psychiatrist, has not resisted the times and contributed much to the study of schizophrenia, as also did Jung. The work of both will be considered in greater detail in the survey of psychopathology and the discussion of the neuroses.

The history of psychiatry is, in a measure, the history of the development of human thought. Indeed, one may see the growth of the human mind reflected in the vicissitudes through which psychiatry has passed. To a great extent it is bound up with the history of religion and of morals, of philosophy and sociology. The history of sex and crime bears close relation to psychiatry and so does the social-economic development of peoples. Were it not for the medical aspects of the problem one might say that the history of psychiatry is that of psychology, or vice versa; and while anthropology is more commonly linked with palaeontology, it really represents a larger aspect of psychiatry. It is noteworthy, too, that the very conception of insanity depends on the age and on the mental development of peoples. The question of industrial organization and the study of ethnic or racial characters and of folk lore are other factors to be considered in the survey of psychiatry. The history of cults, too, forms a part of the story, and so do revolutions and other social eruptions. For obvious reasons these problems have not been dealt with in tracing the history of psychiatry. But there is another, and perhaps more important, aspect of psychiatry which cannot be so easily disregarded. First, there is the great problem of the neuroses, between which and the psychoses no sharp line of demarcation can be drawn psychologically or historically, and yet it is only in comparatively recent times that intelligent insight into that problem has been gained at all. Then there is the question of scientific psychotherapy, of hypnotism and, most important of all, of psychopathology. To trace their

historical development and their place in medicine will be the object of the next chapter.

THE DEVELOPMENT OF PSYCHOPATHOLOGY

In the preceding chapter on the history of psychiatry, it was pointed out that primitive man made no distinction between physical and mental ailments and that he attributed every disease to the influence of spirits and demons. Having formulated that conception he tried either to avert the wrath of the malignant agents or to invoke the aid of more benign ones. The most primitive kind of therapy grew out of these two methods, that is, neutralization of evil influences or propitiation of favorable ones. The earliest form of therapy, therefore, may be said to have been psychic. As man grew older he learned to use simple medical and surgical remedies, but he did not fail to enhance their efficacy by spiritual means. He used magic spells, rituals, incantations, exorcisms, prayers, sacrifices, or even violence, depending upon the prevailing conception of disease, the mystic notion of the universe, and the actual knowledge of medicine. Whether sorcerer or seer, wizard or priest, medicine man or hero, essentially the same means were used to restore health. Even when medical lore increased and knowledge accumulated psychic therapy still held sway over physical treatment, and magic, religion or poetic mysticism were the fountains of health. When the early medical man was sufficiently advanced to recognize mental aberration or insanity, he did not think of it in terms of mental disease. He reasoned from psychic causes and applied, if possible, more potent psychic remedies. Be they spirits, demons or gods who entered into, that is possessed, the individual, and whether he became a saint to be worshipped or a devil to be destroyed, the remedy was magical, psychic. No distinction was as yet made between various forms of insanity. Observation was not keen enough and knowledge not yet sufficiently accumulated. But as in all ages, even in our own

day, therapy was great where facts were few. However, the Greeks, beginning with Hippocrates, finally did recognize mania and melancholia and hysteria and epilepsy, and they spoke out against the visitation of gods and demons; but temple sleep was still a divine remedy and exorcism, incantation or punishment the prevailing modes of treatment—a form of psychotherapy which persisted for centuries. (It may be of interest to note that to this day the idea prevails among some East-European Jews that a departed relative may appear in a dream and prescribe a remedy which if given to the sick will result in recovery. The old temple sleep in modern guise.)

But running parallel with the religio-magic concept of mental aberration was what is termed the somatic or organic view. The Greeks taught that mental disease was like any other disease, and even suspected that the brain had something to do with it. They also associated insanity with other organic bodily changes. Hysteria, as the name implies, they felt had to do with the womb which wandered all over the body, fled evil odors or was attracted by fragrant ones, and generally raised havoc by choking up various passages in the female body. Hypochondria, meaning below the ribs (cartilages) was linked with the liver, while in melancholia black bile was supposed to be the cause of the mental depression. A hybrid union grew up between anatomy and physiology and folklore, magic and religion. Temperament and character were the result of body humors or anatomical regions, and so they bequeathed to us the words splenetic and bilious, choleric and atrabilious, phlegmatic and sanguineous. To suit this hybrid conception therapy became generally an uneven mixture of the physical and psychic, with the latter predominating. But despite the dawning organic concepts the approach to mental disease was essentially psychologic. To be sure, it was vague, mystic, pseudopsychologic, but it was psychologic none the less.

During the dark ages the wise teachings of the Greeks were ignored or forgotten. The demonologic concept of mental disease alone was tolerated, possession by Satan and his minions were the causes of insanity, and lycanthropy was an attested phenomenon. Therefore a form of psychic therapy more mad than the disease was in vogue for centuries. The baneful concept persisted even after the study of anatomy signalized the renaissance of scientific medicine and lingered for about two centuries after Harvey discovered the circulation of the blood and laid the foundation of modern physiology. Even as late as 1843 Heinroth still taught that sin was the cause of insanity and repentance its cure.

In the early part of the sixteenth century a new note into mental therapy was introduced by Paracelsus (*v.s.*). He taught that a vital force contained in a vehicle, known as the *mumia*, could be extracted magnetically during disease. In 1679 *William Maxwell* propounded the theory that all disease was due to the withdrawal of vital fluid from the organs and could be remedied by restoring the necessary magnetic force. *Athanasius Kircher* described the curative power of magnetism as early as 1643, while *Rudolph Golcenius* wrote on the magnetic treatment of wounds in 1608. In the latter part of the sixteenth century, *Jean Baptiste von Helmont* taught that the magnetic fluid which radiated from men could be guided by their wills to influence the minds of other men. A century and a half later Mesmer improved upon those conceptions, and mental influence, or the "imagination," became a potent factor in the causation and treatment of mental diseases. *Franz Anton Mesmer* (1734-1815) was born in Itznang, Switzerland. Like his spiritual father, Paracelsus, he wrote on the influence of planets on disease. He conducted experiments with magnets and came to the conclusion that the human hand possessed magnetic power. He believed that the magnetic fluid of the body could be stored in inert bodies. The *séances* which he carried on in Vienna

became notorious, a court commission investigated them and he was compelled to leave the city. In 1778 he arrived in Paris where he resumed his "hypnotic" spectacles. There he employed "magnetic tubs" with conductors, around which were arrayed patients holding hands. Here too his séances became notorious and he was driven from the city. His activities apparently ceased, having been lost sight of following the Revolution. In 1779 he published his *Memoir sur la découverte du magnetisme animal*. A disciple of Mesmer, the *Marquis de Puysegur*, described in 1780 mesmeric or magnetic sleep, that is, artificial somnambulism.

In the term animal magnetism lurked the very significant notions of hypnotism and suggestion, of which Mesmer was not cognizant; and whatever there was of value was lost in preposterous mixtures of somnambulism, exorcism, necromancy, quackery, and all sorts of vagaries which appealed to the superstitious and credulous. Electricity, too, began to play a rôle, and our own Benjamin Franklin advocated the treatment of disease by means of electric massage, the method becoming known as *Franklinism*. In 1798 *Elisha Perkins* of Connecticut patented his magnetic tractor, a compass-like contraption, which was supposed to effect cures by means of stroking, the efficacy being ostensibly based on the "principles" of galvanism and animal magnetism. The tractors had considerable vogue in England. Essentially those treatments represented the old hybrid mixture of pseudoscience, mysticism and charlatanry altered to suit a newer age. But here, too, it may be pointed out, existed a curious mixture of psychic and somatic concepts of mental disease, the former predominating in therapy. Very deft quackery represented the third element. This mixture has been bequeathed to the present day and the very modern therapy of the neuroses also consists of the organic, psychologic and cultist, the last constituting either an independent entity or a tragi-comic

mixture of the first two, often conceived in religion and generally nursed in fraud.

But while psychiatry was still to a great extent patterned after medieval concepts and psychotherapy had little foundation in reason medicine had almost come of age. Scientific method completely ousted the tradition of dogma, anatomy made phenomenal progress, physiology was safely rooted in experiment, and chemistry had entirely outgrown the miracles of alchemy. A reaction, amounting to a sharp recoil, against psychologic concepts then set in. A rigid tendency to interpret all mental phenomena in terms of diseased structure, especially of the brain, became evident. The organic point of view began to dominate the field. At first the spiritualists, then the vitalists were routed in their battle with the mechanists or somatists. The result of the inculcation of the organic point of view was that psychologic medicine was ignored or disdained. Scientific physicians trained in laboratories actually felt "ashamed" to deal with hysteria and its varied manifestations. Psychic disease was beyond the ken or beneath the dignity of the medical man. He almost shut his eyes to its existence and had no adequate knowledge of its treatment. That was left to quacks, charlatans, cultists, ministers of religion, and sundry purveyors of mental healing. This shortsighted attitude was kept up almost throughout the whole of the nineteenth century. It is maintained to a great extent even at the present time, to the chagrin of the scientific physician, the delight of the quack, and the detriment of the patient. No wonder that a double misnomer crowns a thriving cult.

Before proceeding with the history of the development of psychopathology, it may be well to point out that this budding science is very young, hardly seventy-five years old. While observations on the vagaries of the human mind, the recognition of mental diseases, and treatment by means of psychic methods are very old, the scientific correlation of the facts

observed, the logical deduction of rules and laws of the mind, and the true understanding of the effects of mental treatment are extremely modern. As Hart aptly remarks, psychiatry and psychotherapy are not quite synonymous with psychopathology. Rivers, too, correctly insists on the necessity for distinguishing between the production and the treatment of disease by agencies acting through the mind and the knowledge that the agents used acted in this manner. There is no doubt that disease, often serious and sometimes fatal, has on many occasions and throughout all the ages been brought about through the influence of the mind. And we have seen that from the earliest times psychic means were employed to cure disease. The correct knowledge of these facts, however, is comparatively recent, and it is this knowledge—the ability to explain in psychologic terms—which constitutes psychopathology.

The study of what goes today under the heading of neuroses is also fairly modern. While obsessions have been known for a long time and hysteria was vaguely recognized even in ancient times no true distinction had been made between neuroses and psychoses. The very term *neurasthenia* was introduced in this country by *George Miller Beard* in 1869, although the concept was no longer quite new at the time. The recognition of the neuroses as a separate group is daily gaining in importance from the immense significance they play in the lives of man as an individual and in the social structure as a whole. It is hardly an exaggeration to say that the wide prevalence of the neuroses gives them an importance far greater than the psychoses, and it is interesting to note that the growth of psychopathology and the understanding of mental problems in general began with the study of the neuroses.

For two generations the cloak of charlatanry enveloped the kernel of truth uttered by Mesmer. In 1843 *John Elliotson* (1791–1868) published a pamphlet entitled “Numerous Cases

of Surgical Operation without Pain in the Mesmeric State." He probably was the first physician to use hypnotism in surgical operations. At the same time *James Esdaile* of Scotland (1808-59) employed hypnotism in operations on Hindu convicts. Parenthetically it may be remarked that the induction of the hypnotic state was known for centuries among the Hindus, and what is now recognized as hypnotism may be acknowledged as the most valuable contribution of *Hindu medicine*. But the first earnest study of the subject was made by *James Braid* (1795-1861). He was a surgeon of Fifeshire, Scotland, who settled in Manchester. Like every reputable physician of his day he believed that mesmerism was but another name for the numerous quack methods of treatment then in vogue. But, his interest aroused, he began to experiment and finally concluded that mesmerism was entirely a subjective state. It was his opinion that the sleep was produced by the fixed stare at a bright object. He changed the term mesmeric force to neurohypnotic force and coined the word hypnotism (1841). He was violently opposed by his colleagues. In 1843 appeared his "Neurypnology, or the Rationale of Nervous Sleep."

Jean Martin Charcot (1825-93) was the man who laid the sound foundation for the scientific study of mental phenomena. The birth of the modern, psychologic conception of the neuroses may be said to date from the time he began his investigations. In 1862, after he contributed many brilliant studies to general medicine and in the field of organic neurology, he became physician at the Salpêtrière. There he carried out his classic investigations on hysteria and his spectacular experiments with hypnotism. He discovered that a "morbid" or "pathogenic idea" was capable of producing hysteric manifestations, and that the pathogenic idea and hysteric symptoms could be influenced favorably by means of hypnotism. He defined hysteria as a psychosis (not a neurosis) produced by ideation and responsive to

suggestion. Hypnotism he regarded as a morbid condition, pathologically akin to hysteria. Throughout his studies Charcot emphasized the "organic" point of view both as to the nature and causation of hysteria and stressed the hereditary organic deficiency or "degeneration" of the brain. None the less his conception of the pathogenic idea and the production or elimination of symptoms through the mental influence of hypnotism stamps his approach to the neuroses essentially as psychologic. Together with *Paul Richer* he published a monograph on demonomania and started the *Nouvelle Iconographie de la Salpêtrière*. In his work on *Grande Hysterie*, Richer developed his master's views and concluded that hypnosis was a condition produced by physical means; that it consisted of three stages, namely, lethargy, catalepsy, and somnambulism; that each stage was initiated and terminated by physical procedures; that magnets had a specific action; and that hypnosis was identical with hysteria. Thus the investigations of Charcot mark the first step in the growth of scientific psychotherapy.

Bernheim of Nancy carried his researches into the nature of hypnotism much further. He discerned the tendency of the human mind to accept without proof, and even contrary to reason, assertions authoritatively made by others, provided the recipient was in a suitable state of mind. Together with *Liébault* he substituted verbal for sensory stimuli, such as gazing at mirrors or other objects. His studies on the nature of hypnotism led him to interpret it as *suggestion* and the phenomena produced by hypnotism as the result of suggestion. Thus the native capacity for suggestion was the cause of hysteria and could be made use of in bringing about a cure. Suggestion differed from hypnotism merely in degree, and, as far as psychotherapy was concerned, could be given in the waking state. (The more recent notion of *pithiatism*, as set forth by *Babinski*, is but a modern formulation of *Bernheim's* theories, though *pithiatism* carries the connotation of persua-

sion and cure and is used synonymously with, or as the equivalent of, hysteria.) Whereas Charcot stressed the pathologic side of hypnotism, and *Heidenhain* the physiologic, namely, the abolition of cerebral function caused by sensory stimulation, *Bernheim* propounded the first purely psychologic.

The next great advance in the psychologic approach to the neuroses was the formulation by *Pierre Janet* (b. 1859) of the concept of *dissociation of ideas* or personalities. He, like others, made scientific use of hypnotism as a method of psychologic investigation and embodied his ideas in various works on the Neuroses and Fixed Ideas (1898), *Psychasthenia* (1903) and studies in *Hysteria* (1903-08). For Janet mental life is a complete unit, a single synthesized stream of consciousness, capable of division into two or more currents in the production of neuroses in general and dissociation of personalities in particular. Mental life is synthesized by a psychic energy, a certain psychic tension. In the neuroses there is a splitting of, or dissociation in, the psychic energy with the formation of various psychic levels. Depending upon certain hereditary tendencies and innate or acquired organic deficiencies, shock, strain, fatigue, or emotion (as if emotion is in itself pathological) are capable of bringing about abnormal splitting of the stream of consciousness. Neurosis, then, is a failure of synthesis and the unconscious is merely a part split off from consciousness. Inner conflict plays no part in Janet's conception of the neuroses and he leaves out of account the possibility of unconscious psychologic motivation as the cause of, or the reason for, the development of neurotic manifestations. The ultimate cause is an organic disturbance, a "degenerative" process, on an hereditary or acquired basis. *Morton Prince* adopted more or less the methods of the French school of abnormal psychology and contributed a great deal to the understanding of dissociation of personalities. He, too, made use of hypnotism and automatic writing for the investigation of the neuroses, and we owe to him the concept of the

coconscious (the repository of latent and forgotten memories) as the stream of mental life in alternating personalities. While those investigations furthered greatly the understanding of mental processes, they represent a more refined stage of what is known as purely descriptive psychology. The conceptions of Janet and others of his school may be characterized as an intellectual approach to the neuroses, without regard to instinctive or "dynamic" motivation.

Parallel with the development of clinical psychology grew up the school of experimental or physiologic psychology. Lotze, Helmholtz, and Fechner were the pioneers who laid the foundations for this branch of science, but it was essentially *Wilhelm Wundt* (1832-1920) who created the school. He was the first to found an institute of experimental psychology. By means of physical and physiological experiment normal individual reactions, reflex responses and general behavior came to be interpreted in terms of neural mechanisms. As a corollary to this, all abnormal manifestations, hence the neuroses, could be looked upon as the result of qualitative or quantitative disturbances in the functions of the nervous system. The researches in physiologic psychology were largely furthered by the more modern work of *Ivan Petrovich Pavlov*. Based on his animal experiments in the study of digestive and salivary secretion, Pavlov established the principle of conditioned reflexes, by which is understood a physiologic response to a secondary stimulus not primarily capable of eliciting that particular response. Thus, whereas the presentation of food to an animal causes a flow of saliva or its ingestion induces gastric secretion (primary stimulus and reflex response) the association of a sound or a flash of light with each feeding (secondary stimulus) ultimately results in a response (flow of saliva) even though no food is presented. This is the conditioned reflex. Many reflexes can be thus conditioned and it is possible that most complex behavior is the result of a complicated series of conditioned and recon-

ditioned, also of inhibited, reflexes. It is evident, therefore, that from a purely physiologic point of view one might attempt an interpretation not only of normal behavior but also of the causes and manifestations of the neuroses in terms of conditional reflexes. This has, indeed, been done by *Bechterew* and others who embodied the ideas originated by Pavlov. *Behaviorism*, as conceived by *Watson*, is based on those principles and is but an extension of the Pavlovian formula. Conscious and unconscious for the behaviorist are obsolete terms, significant of states of mind which do not exist. All that exists is the complex motor response, and thought is but the result of muscular (especially laryngeal) action. Finally disturbances in the functions of the sympathetic, autonomic or vegetative nervous system and the vaguely apprehended workings of the glands of internal secretion have been invoked as factors in the causation of the neuroses. With respect to the latter the poverty of actual knowledge has given birth to much speculation, considerable phantasy and unbridled fiction which threaten to engulf the truth. However, all the experimental physiologic and psychologic studies represent an organic, biologic approach to the study of mental phenomena.

Thus far, then, scientific psychopathology, that is, all attempts at the interpretation of mental process, ranged from the somatic to the psychologic, the latter practically always mirrored against an organic background. It was reserved for Professor Freud to formulate a purely psychologic concept of the etiology, the development, and the treatment of the neuroses. He dissociated his studies from the investigations of neuroanatomy and neurophysiology, discarded as unprofitable the purely descriptive psychology and evolved what is correctly termed the psychology of motivation or emotivity. Binswanger and others also stressed the affective or emotional tone in the symptomatology of the neuroses, but their conceptions have little or nothing in common with the "dynamic"

psychology of Freud. *McDougall* has evolved what may also be called a dynamic, or what he terms "hormic," psychology, based on his profound studies of the instincts, but his views not only differ extensively from, but in many ways are fundamentally opposed to, the views put forward by Freud. Numerous workers, more particularly Jung, Abraham, Ferenczi, Jones, Adler, Rank, Brill, and a few others have contributed to the growth of psychoanalysis (some of them adding weeds), but more than ninety per cent. of what constitutes genuine psychoanalysis was evolved by the originator himself.

Sigmund Freud (b. 1856) began his medical career in Vienna where he at first worked in pharmacology, physiology and neuroanatomy, and later became a keen student of organic neurology, in fact contributing what is still considered the best study on cerebral paralysis in children. While attending Charcot's clinics in Paris he became acquainted with that master's views on hysteria and also with those of Bernheim of Nancy. He returned to the practice of neurology in Vienna and there began to collaborate with *Breuer* who evolved the earliest *cathartic* or *analytic method* as a substitute of, or adjuvant to, hypnosis. Freud, who had also been working with hypnotism, became dissatisfied with it as a method of investigation and ultimately discarded it in favor of the analytic procedure. He soon parted with Breuer, who would not follow the more radical views on the significance of early sex experiences or traumas in hysteria, and he pursued his studies alone. Without going into the history of the development of psychoanalysis it may be said that aside from Breuer, Freud was not much influenced by the views of Charcot or Bernheim and very little by the studies of Janet, and his views represented an utterly independent growth. He came to realize the immense importance of unconscious *conflict* in the causation of the neuroses, a notion entirely different from the previous conception of conflict as a conscious process. Meeting with stubborn resistance in his attempt to uncover,

by means of questions, forgotten, generally unpleasant, memories he reasoned that the unconscious "force" which hinders (*resistance*) the patient from bringing them to the surface must be the same which originally shut them out. He thus came to the idea of *repression*. This, together with the discovery of the significance of early childhood and *infantile sexuality*, the notion of a dynamic, motivating *unconscious*, so different from all other notions hitherto entertained, and the idea of conflict constituted the fundamentals of psychoanalysis. The concept of *transference*, which later followed, is equally fundamental. His studies on the significance of dreams resulted in the publication of *The Interpretation of Dreams* and his profound studies on sex in *The Three Contributions to the Sexual Theory*. Freud evolved a great many other concepts, among them that of the libido, complexes, of which the Oedipus is the most debated, the notions of symbolism, conversion, compensation, sublimation, regression, fixation, the pain-pleasure and reality principles, the principle of psychic determinism, the ego, the id, the super-ego, and a host of others. In short he created a whole new psychologic language, applicable not alone to the study of the neuroses but affecting almost the whole range of human thought. Finally Freud perfected what is today a most useful psychotherapeutic procedure and in selected cases an extremely valuable method.

Jung, the most brilliant of Freud's early pupils, at first accepted the psycho-analytic teachings, contributed excellent studies on schizophrenia, perfected the Association Method (which is different from the free association in analysis), and introduced the concepts of *introversion* and *extroversion*. Later Jung broke with the master and entered the realm of speculative psychology, bordering, as his opponents aver, on the newer mysticism. Jung discarded the dynamic view of the unconscious, substituting for it the notion of an individual unconscious and an archaic or collective unconscious.

The former is said to hold individual suppressed complexes, the latter inherited racial impressions. The libido, too, became with Jung a universal force (a Schopenhauerian concept) and not, as with Freud, the energy derived from the sexual instincts. Jung rejected the idea of repression, for which he substituted the notion of neglect. The conflict is not between the ego and the instinctive energy but between adapted and unadapted functions. He holds that the purpose of the conflict is general adaptation to life; in short, his views are teleological.

Adler, making use (or misuse) of Freud's terminology, discarded practically all psychoanalytic teaching and evolved the notion of organic inferiority. He rejects the idea of the unconscious, denies the phenomenon of repression, and entirely discards the existence of infantile sexuality. All is purpose, even the dream; everything is teleologic. This purpose is the "Will to power" (a Nietzschean concept), a desire for superiority over others, in the neurotic a reaction against a feeling of inferiority, rooted in hereditary or acquired organic deficiency. The striving for power is called the "masculine protest," which is the guiding fiction of every neurosis. Successful striving for power results in ambition, failure means a neurosis, flight from reality and development of symptoms as excuses for the failure. Adler thus builds a whole psychology of popular words around the debatable notion of organic inferiority and iterates and reiterates the same patent formula in the discussion of every conceivable form of human activity. Of Rank's defection all that need be alluded to is his recent indulgence in extravagant fantasies, which have no relation to medicine or psychology, and his lapse from accepted psychoanalytic standards.

Bleuler made valuable contributions to the understanding of schizophrenia and evolved the notions of *schizoid* and *syntonic personalities*. While these are new and very useful they remain purely descriptive terms. Bleuler also contributed

the notion of *autistic* thinking, or day-dreaming, a characteristic of the schizoid or introverted type. He further evolved the concept of *ambivalence*, by which is meant the existence at the same time of ideas charged with opposite emotional tones, such as hate and love. While Bleuler never fully accepted the teachings of Freud, he did adopt the principles of dynamic or motivating psychology. In this country *Kempf* attempted to explain mental mechanisms in terms of the autonomic nervous system—at present an extremely difficult task and in a manner an attempt at fusion of organic neurology with dynamic psychology. Finally, *Kretschmer* also tries to correlate the psychologic with the organic or physiologic. In his interpretation he makes use of instinctive biologic reactions or patterns, emotional shock, conditioned reflexes and a variety of psychologic concepts. Kretschmer, too, divides humans into *schizoid* and *cycloid*, a parallel to extrovert and introvert, with this difference, that whereas Jung's concepts apply to types of temperament, Kretschmer's relate to character development—a very tenuous distinction.

Thus far, then, psychoanalysis alone remains true to the purely psychologic concept of the neuroses. Many of Freud's opponents and lip-worshipping adherents, who accept the psychologic view of the neuroses, adopt practically all of his terminology and most of his views, then berate him for refusing to abandon that which their own resistance forbids them to accept. Others accept the psychologic approach in part but try to speak of psychology in terms of physiology or neurology. This seems to me at present almost an impossible task, seeing how little we know as yet of the actual function of the nervous system. For an understanding of the neuroses it is more important to know why a person does a certain thing than how he does it. The former can best be interpreted in psychologic terms; the latter belongs to the field of neuro-anatomy and neurophysiology. Therefore, without ignoring the valuable contributions of investigators in the study of

the neuroses and the various branches of psychopathology, I shall in the following pages adopt the psychologic and, in the main, psychoanalytic approach to the neuroses.

There remains the general biologic view of abnormal psychology, as embodied in social psychology, which has thrown considerable light on the genesis of the neuroses; and there are those investigators who would approach the problem from what may be called the social-biologic point of view. The study of the instincts, of comparative psychology, of ethnology, of sociology, of the question of adaptation in the struggle for existence, of comparative religion and morality, no doubt has important bearing on the great problem of the neuroses. Indeed much of our knowledge has been derived from those sources just as the study of the neuroses has thrown light upon those allied fields. It is extremely difficult to dissociate the struggle for external adaptation from the inner conflict to which all human beings are exposed, so that due attention must be paid to environmental factors of all kinds. But many of the views on modern social psychology and allied fields of research, which have bearing on the study of the neuroses, have been to a great extent influenced by the teachings of psychoanalysis. And yet, it must be admitted that many writers see fit to ignore or condemn the great sources from which, consciously or unconsciously, they draw some of their knowledge and much of their inspiration.

To clear up all possible misconception let me concede at once the theoretic probability that for every mental process there is an underlying or accompanying biophysical or chemical neural activity. Practically all the facts of neurophysiology thus far accumulated force the acceptance of this conclusion. There is also no doubt that general physical and special neural disposition, or hereditary factors, condition not only physical and mental development but in large measure determine subsequent reactions to the vicissitudes of life. It is equally certain that the activities of the glands of internal

secretion have a definite influence on normal behavior and that disturbance of their functions is capable of producing abnormal mental reactions. One need merely allude to the mental manifestations which occasionally result from excessive, diminished or perverted function of the thyroid, pituitary, and gonads. Nor is there reason to doubt the probable important influence of the vegetative nervous system on mental activity, but our knowledge of its physiology is so meager that we have little proof and less certainty. But granting all this it is fruitless to argue the merits of psychophysical parallelism or engage in wordy battles over mechanistic or vitalistic concepts in the discussion of mental processes and the psychology of the neuroses. We cannot in the present state of our knowledge discuss obsessions in terms of chemistry and physiology or hysterical phobias in terms of physics or neuroanatomy, however interesting the speculation might be. Nor need the organic neurologist or somatist pretend that he can explain in physiologic terms processes which he cannot or will not express in terms of psychology. It is no contribution to knowledge to use obscure and incomplete concepts merely because they are couched in "scientific" phraseology.

Much of the ingrained opposition of the somatist to psychologic medicine in general and psychoanalysis in particular is based on some of the above considerations. Now, it is quite possible, perhaps even probable, that all of the physical and most of the psychic manifestations of the neuroses will some day be explained in terms of neurophysiology. There is already considerable evidence to warrant such a statement. The close similarity, for instance, between the mental manifestations of organic brain disease and so-called functional, or better, psychogenic, mental disorders is evidence which cannot be easily disproved. (The word functional ought to be entirely discarded in the discussions of the neuroses and psychoses. All general physical and special neural activity

is functional in the sense that every organ or tissue or group of cells has a function which finds expression in activity. Salivary secretion is a function of glands and pulsation a function of the heart. Both these activities are functional. Therefore, to convey the notion of initiation of a function which is not the implied result of some organic activity the word psychogenic should be employed. The word functional has purposely been used once in order to assail it and will never again be used to convey the idea of psychogenesis.) There is also no doubt that progress in neuroanatomy and physiology, in biophysics and chemistry, in ultramicroscopy, in the complex functions of the glands of internal secretions and the vegetative nervous system will solve many a psychopathologic riddle and reduce to gibberish much that passes for current psychology. We may also some day learn how psychic factors, such as fear or other sudden emotion, can initiate or precipitate an organic disease or pervert normal function. But it is doubtful whether even then we will be able to do away with the use of psychologic terms for psychologic process. There can, therefore, be no objection to psychoanalysis on those grounds.

It is no exaggeration to say that thus far psychoanalysis has vouchsafed better insight into normal and abnormal human behavior than all the psychology that has gone before. Aside from the new vistas which have been opened a language has been created which gives meaning to psychopathology and can be employed with understanding by both psychotherapist and patient. It is safe to predict that further scientific research and intellectually honest criticism will safeguard it against petrification into a rigid system in the future as they have in the past. One may, therefore, well agree with the late Stanley Hall that "nothing since Aristotle's categories has gone deeper (in the exploration of the vast regions of psychic life) or in my opinion is destined to have such far-reaching influence and results."

There are two other criticisms which are generally leveled against psychoanalysis. One is social or moral and the other is scientific. The first deals with the emphasis on infantile sexuality in particular and the rôle of sexuality in general in the causation of the neuroses; the second deals with the question whether psychoanalysis conforms to strict scientific method. The notion that the sexual instinct plays a rôle in the causation of the neuroses, whether true or not, seems to be abhorrent to many persons, and is evidently rooted in a frail morality which has no place in scientific discussions. The objection that therapeutic analysis rakes up "filth" which were better left alone is insulting to the intelligence. It is quite obvious that psychoanalysis is not responsible for the emotional fermentation which the sexual instinct is capable of setting up. Before analysis was dreamed of Krafft-Ebing wrote his *Psychopathia Sexualis*, and both Sacher Masoch and Marquis de Sade mirrored actual experiences in life. Havelock Ellis, aside from having first defined the valuable idea of *auto-erotism*, has demonstrated even before Freud the vagaries of the sexual instinct, and emphasized the importance of the sexual problem. That some people take offense at the notion of the libido proves, first, that they do not quite understand the concept and, second, because libidinous is used in literature synonymously with lewdness or lasciviousness, that they have allowed etymology to befuddle logic. Obviously there is nothing vulgar in sex unless one makes it so. But the whole question reduces itself to one of fact. Does sexual maladjustment cause neuroses in the adolescent and adult and do children manifest sexuality which on occasion does not run smoothly and leads to mental conflict, maladjustment, and neurosis? To both every honest neurologist and psychiatrist, psychologist, criminologist, or social worker must answer in the affirmative. As to the question of raking up filth, the first answer is that only a frail mortal will brand sex discussion as filthy and, second, that no surgeon hesitates to open an

abscess for fear of encountering foul pus. "Scientific" rigidity is no less inimical to progress than congealed dogma.

The question whether psychoanalysis conforms to the methods of science is not only valid but extremely important. If it does not then it has no place in scientific psychopathology. Bernard Hart in his *Psychopathology and its Place in Medicine* has given an excellent critique of the subject and concluded that, in general, psychoanalysis does conform to the canons of science. The methods of observation, the orderly correlation of the facts observed and the logical deductions of rules or laws accord with the criteria set up by science. He points out two weaknesses: first, that there is "interpretation" of facts, that is the analyst (a variable) is interposed between what may be called stimulus and response or between cause and effect; second, that inference often takes the place of direct evidence. The setting up of hypotheses and theories which may subsequently prove to be wrong cannot be scientifically invalidated, provided they are based on the facts thus far accumulated and hold good in the cases for which they are invoked. Now it is true, for instance, that the evidence for the existence of the unconscious is inferential, but the same may be said of many other facts in psychology which are not facts of observation but of inference. But psychologic truth can also be tested by introspection, by observation of behavior, and by introspective account of behavior. The weakness which can still be adduced is one which is at present inherent in all psychologic investigation. The other weakness of the method of interpretation is a genuine one, and the interposition of the analyst between the stimulus and response may conceivably, by shunting responses and coloring reactions, vitiate the result; but much depends in this, as in every other field of science, on the intellectual integrity of the observer and the reliability of his observations. In any case the fundamental concepts of analysis, namely, conflict, repression, the unconscious, infantile sexuality and transference, are based on

such a wealth of evidence that their validity cannot be easily questioned. There are debatable points even in these, admittedly theoretic, concepts, and there are still others, such as symbolism for instance, which are not only subject to various explanations but are highly theoretical if not speculative. However, within the limitations to which psychology in general is inevitably exposed, psychoanalysis does conform to scientific criteria. That many hypotheses will ultimately be discarded is fairly certain; that a great many of the facts accumulated will remain as permanent contributions, I believe, is equally certain.

In conclusion, I should like to call attention to certain changes, or perhaps mutations, in the manifestations of the neuroses which have become more and more evident in recent years, at least in this country. One rarely sees in the clinics or hospitals the types of hysteria which have been so often described in former years. Hysterical paralyses, such as monoplegia, hemiplegia and paraplegia, are extremely uncommon, grand crises or hysterical convulsions are rarely encountered, widespread anesthetics, bizarre gaits and abnormal involuntary movements are not often seen, and so on with other gross defects simulating organic nervous diseases. What one does observe more and more commonly are anxieties, phobias, obsessions, vague or pronounced general mental hysterical symptoms, mild hypochondriacal and conversion phenomena, general maladjustment, mixed neuroses and a host of other neurasthenic and hysterical conditions. That is, the neuroses tend to manifest themselves at higher psychic rather than at the lower physical or somatic levels. There was but one exception, and that was during the War, when all the major signs of hysteria were extremely prevalent in soldiers of all armies. Those represented typical low-level reactions to a frightful situation. But aside from that period, at least in civil life, I believe that the observation holds true. Without venturing in this place a theoretic

explanation, it would seem as if with the advance of civilization, the waning of ignorance and superstition, the changing methods of adjustment to life, and the different types of conflict to which the individual has become exposed, has come about an alteration in the manifestations of the neuroses. The struggle being at a higher psychic level, the neuroses too develop on a higher plane. The conditions apparently have changed and with them the neuroses.

CHAPTER II

MENTAL MECHANISMS

The psychologic concept of mental mechanisms, though based to a great extent on observed facts, is largely theoretic, and its aim is to express in terms of general principles the normal and abnormal workings of the mind. It were better perhaps to speak of psychologic processes rather than mechanisms, but the former presupposes an amount of physiologic knowledge which we do not as yet possess, and fails to take into account the "reasons for" the activity of the mind. While the word mechanism may convey the erroneous notion of the physical operations of the mind, it has come to stand for definite psychologic concepts and aims to speak of the "dynamics" of human thought or the reasons for mental reactions, conduct and behavior. Actually one cannot draw precise distinctions between the two terms and, provided one bears in mind the extent of the theoretic connotation of both, one may use either to express general psychologic principles. Essentially the emphasis is on psychologic motivation, on instinctive behavior.

The knowledge of the significance of human behavior and the mental reactions underlying it was derived from divers and, what at first would seem, unrelated sources. Curiously, this knowledge was greatly increased by the study of what is known as neurotic behavior, and it is no exaggeration to say that much of the understanding of what is commonly regarded as normal was derived from studies of the abnormal. As long as man was supposed to have a soul, a superior psyche, which set him apart from all other animals, little insight was gained into the mainsprings of his mental life. Real understanding

came only with the realization that the mental life, like all other life, attained its development through slow evolution, that not only is the child father to the man, but that his humbler forebears, his primitive ancestors, are not so far removed from him and that even the instinctive behavior of lower animals bears close resemblance to the more complex reactions of man. Indeed it was only with the growing appreciation of the profound influence of primitive instincts on human thought that genuine insight was gained into the problem at all. The knowledge thus slowly accumulated came from the study of the behavior of children, primitive peoples, mental defectives, the insane, animal behavior, myths, folklore, and, most important of all, the analysis of the "non-conscious" life of dreams, hypnosis and allied states. When it was finally realized that what is regarded as intellectual not only springs from the instinctive or emotional side of life, but cannot be easily dissociated one from the other, a dynamic psychology came to replace the descriptive one. This fundamental fact was little emphasized or altogether ignored hitherto, and even to this day too fine a distinction is made between intellect and emotion in the motivation of human conduct or the production of the neuroses. Not that there are no obvious surface differences between the two modes of reaction, but their complete dissociation still characterizes to their disadvantage certain schools of thought and colors their approach both to the study as well as the treatment of the neuroses.

Perhaps the most far-reaching conclusion arrived at in the study of the neuroses is that "abnormal" mental mechanisms differ in kind very little or not at all from the "normal." Hitherto the two types of reaction were considered altogether different, in effect an aberration of the one from the other. Certainly this was regarded as fundamental in the case of the insane, whose thoughts, ideas and reactions were supposed to be utterly different from those of the sane. Little by little

the conviction grew that fundamental as the outward differences might be, there was close similarity between the underlying mental processes of the psychotic and the neurotic and between both and the normal. It was considerably more of a matter of degree than of kind, of quantity rather than essential quality. The same mental processes were seen to be operating in the socially well-adapted individual as in the maladjusted neurotic. In both the behavior seems to occur in response to definitely motivated psychologic processes, the variations reflecting merely the differences in motivation, in the types of instinctive reactions and the attendant conditions or circumstances. From this point of view one may agree, therefore, that every normal person is a little neurotic and every neurotic very much normal.

The gradual dissolution of the sharp line of division between the so-called intellectual and the emotional or instinctive motivation of human behavior came from the further observation that much which appears logical, consciously motivated, is in reality the result of inner mental processes of which the individual is unaware. Conversely, and this is even more important for the understanding of the neuroses, the conclusion was reached that curious mental reaction or "queer" neurotic behavior is also definitely motivated and that it, therefore, has a significant place in the mental economy of the individual. From this it follows that every mental manifestation has some meaning, every symptom definite psychologic significance; that nothing is haphazard in the psychic sphere any more than in the outer world; in short, the law of causality holds true here as elsewhere. According to psychoanalysis, then, every mental process is the result of other mental processes which have preceded it. This is known as the *law of psychic determinism*. Therefore, what appears spontaneously as unmotivated, what seems irrelevant, contradictory, or accidental may be shown to be directly or indirectly the result of psychic processes which have gone

before. The truth of this assertion may be investigated and demonstrated by the *free association method* of psychoanalysis and is corroborated by numerous observations of every-day life. This method of free association, which consists of linking together spontaneous ideas as they arise in connection with any thought that may serve as a starting point, frequently brings to the surface motives which range from the more or less obvious, to the plausible but startling up to the incredible. If the fundamental concept of psychologic determinism is accepted no mental process or behavior reaction can appear queer, silly, irrelevant, or ultimately inexplicable. In this sense a slip of the tongue, an error in writing, a harmless *faux pas*, a peculiar gesture, a lapse of memory become psychologically important. One may meet with resistances in the attempt to uncover their meaning; one may encounter mental conflicts, find contradictory motives, inadequacy of repression (*v.i.*) in the process of concealing them; but as phenomena they both lend proof to, as well as gain significance from, the law of psychic determinism.

The validity of much which has been said so far and practically of all that follows depends upon the acceptance of the theory of the unconscious. Unless this is done little insight can be had into the psychopathology of the neuroses. Indeed one cannot speak of dynamic psychology at all unless one assumes the existence of unconscious mental process; and it is impossible to discuss psychoanalysis without understanding the full significance which the unconscious is supposed to play in normal mental life as well as in the production of the neuroses. The concept, which is admittedly theoretic, though based on facts of experience, is fundamental to the whole psychoanalytic structure. But it must be pointed out that Freud's view of the unconscious differs almost entirely from the notions hitherto entertained by philosophers and psychologists.

Psychologists have for a long time been familiar with the fact that there are mental processes lying outside the field of attention, which they spoke of as the threshold of consciousness or subliminal consciousness. Schopenhauer's conception of Pure Will or Unconscious Will and the Universal Unconscious recognized the existence of a "force" which transcended consciousness, and replaced the obscure *Das Ding an Sich* of Kant. So does Bergson's emphasis on the fundamental distinction between instinct or impulse and intellect imply an unconscious. The same metaphysical principle underlies von Hartman's view of the unconscious. Nietzsche, in his Will to Power, attached even greater significance to underlying unconscious motives and regarded as ludicrous the overvaluation of consciousness. The more modern psychologists, particularly the French, of whom Janet is perhaps the foremost exponent, concede the existence of a subconscious, in the sense of a lower level of consciousness; while Morton Prince conceived the notion of a co-conscious, an alternating consciousness. For Janet the subconscious has the same characteristics as consciousness, except that it is not integrated with the main stream of consciousness. Parenthetically it may be remarked that the existence of a subconscious also is inferential and is deduced from automatic writing, hypnosis or dissociation of personality.

The unconscious as understood by Freud is not merely a repository of old or forgotten memories and impressions which can be recalled at will or revived in hypnosis, nor a mystic universal force as stated by both Nietzsche and Schopenhauer and more recently expounded by Jung. It is conceived of as a living, motivating, dynamic system of mental processes, constituting the major part of psychic life, capable of independent existence within the individual, and exerting preponderant influence on his behavior. It was as a result of the study of mental mechanisms, especially as they appeared in the neuroses, by means of free association and the analysis of

dreams, that Freud reached the conclusion of the fundamental importance of the unconscious in the whole of psychic life, of which consciousness is but a small part. This unconscious, which draws its energy from inner processes, from instinctive impulses or cravings, among which those pertaining to sex or love life play a very important, though not exclusive role, is capable of leading, so to speak, a life of its own in phantasy. (It is worth noting that phantasies, too, have a psychic reality, and it is this reality which gives them force.) The unconscious, not having to deal directly with objective facts of the outer world as does consciousness, is not subject to limitations imposed by reality. It need not conform to the laws of logic or submit to definite temporal limitations. Therefore it does not reckon with time, admits of existence side by side of contradictory and illogical ideas and permits groups of ideas surcharged with energy or affect to remain unaltered for years and years. The unconscious may be said to be "anarchic" and would act as such if it were not for the restraining influence of consciousness. Finally, the unconscious does not reckon with reality because it is guided by the pain-pleasure principle (*v.i.*).

The ideas or groups of ideas deposited in the unconscious from early infancy and childhood are surcharged with an energy which constantly seeks outlet, but cannot always attain it. It is this restlessness of the energy which gives dynamism to the unconscious and permits the unconscious processes to exert influence on conscious behavior. It is also the circuitous expression of unconscious ideas and impulses which gives rise to inexplicable isolated manifestations or unaccountable general conduct and accounts for the formation of signs and symptoms in the neuroses. Without entering for the present into a discussion of the way the unconscious affects conduct it may be well to emphasize once more the extent of its influence on seemingly intelligent conscious activity. By way of illustration one may visualize a motion

picture reel of, say, five thousand feet, of which at any given moment only one panel of about an inch is projected on the screen. Obviously the picture which is shown is but one-sixty-thousandth part of the whole reel, and yet the remainder which is not at the moment projected is intimately linked with what is and has definite bearing upon it.

Although he makes use both of the terminology and the concepts of psychoanalysis, Jung has considerably expanded the notion of the unconscious. For him there is a *personal* or *individual unconscious* and a *universal unconscious*. The latter, or *collective unconscious*, is supposed to contain memories common to the race, in certain instances peculiar to special races, inherited impressions, archaic types of thinking, residues of historical epochs. In it are found the inherited archetypes and symbols of folklore and mythology. The personal unconscious holds the memories and object images of the individual past, marginal impressions, repressed ideas and much that is common to the race. Jung's notion of the unconscious, aside from being metaphysical, if not mystic, obviously embodies the Schopenhauerean principle of the universal Will and thus stands outside the realm of psychology. Further, the unconscious in this speculative scheme becomes teleological, its purpose is adaptation.

In addition to the unconscious Freud conceives two other parts of the psychic system, all of which together constitute what is generally termed psychic life. Within there is the vast field of the unconscious which contains all the ideas and groups of ideas surcharged with primitive emotion; without there is *consciousness*; in between there is the *preconscious*. Consciousness in this scheme is a "sense organ" which receives impressions from the outer world of reality and from the emotionally-toned ideas of the unconscious. Consciousness, then, must reckon both with the world of objective reality and the world of subjective phantasy. Before ideas from the unconscious can enter consciousness they must pass

certain controlling or resisting forces in a manner presently to be considered. If they cannot they are shunted back again, repressed, in the unconscious. But to enter consciousness at all they must pass the preconscious. In this "sphere," then, exist ideas which may either be admitted to consciousness, banished to the unconscious or remain in contact with both, all depending upon their compatibility with reality and their capacity to gratify desire, relieve tension or avoid pain. The pain-pleasure principle may be said to hold true here as elsewhere in the mental economy. In this theoretic scheme of *mental topography* psychic systems are conceived of as having spatial relations. While this is admittedly an abstraction one might speculate on the existence of higher, middle and lower levels in the anatomic-physiologic sense of Hughlings Jackson and even speak of the various layers of the cortex, the lower association pathways and the basal ganglia (thalamus) as regions which harbor respectively conscious, preconscious and unconscious or emotional mental processes. In physiologic terms consciousness may be understood as a function of the brain, just as digestion is a function of the gastro-intestinal tract or palpitation a function of the heart. One may also conceive of consciousness as a slow growth of cerebral function, representing the highest, most complex type of cerebration built up from simplest impressions.

It has been said that in the unconscious exist ideas or groups of ideas deposited from infancy onward. When these groups of ideas are charged with various emotions, and they all are more or less, they are known as *complexes*. These deeply buried ideas tinged with affect or emotion influence conduct and determine behavior. If they become conscious they determine behavior directly; if they cannot become conscious, as is generally the case, they influence it indirectly. It is the presence of these unconscious complexes which explains bizarre conduct, peculiar actions or inexplicable points of view

in otherwise perfectly rational beings. The observations that a man becomes a francophile because he loves a French lass or an anglophobe because he was once snubbed by an Englishman may be recognized at once as simple examples of the indirect influence which emotion can exert. The well-known emotionally-tinged ideas regarding race, nationality, religion, or politics are further examples of complexes which cannot be reasoned with, which appear so obtuse to all those not having the same complexes, and which are ineradicable because they are so deeply ingrained in the unconscious. But there are infinite numbers of complexes which are more deeply buried and exert far profounder influence. Not all, however, are recognized and a number of others a host of psychologists refuse to acknowledge altogether. Thus one may readily understand the significance of the inferiority complex which is now worn threadbare by the superficial verbiage of Adler, but fail to recognize in it or refuse to accept as true Freud's well-known *castration complex*. Under this name go the emotionally-toned ideas, fancied or incorrectly inculcated in early life, that a phallic loss was sustained, and that this imaginary privation subsequently colors adult conduct in a negative way. The *Oedipus complex* is another vehemently disputed affectively-toned idea. By this is understood the early identification of the child with the parent of the same sex, which gives rise to a hostile desire born of sex antagonism to replace that parent in the affection of the parent of the opposite sex. But many who stoutly deny the existence of such an "incestuous" complex gladly acknowledge the greater depth of affection fathers generally have for daughters and mothers for sons, or girls for fathers and boys for mothers. In general it may be said that a great many complexes can be brought to the surface by means of analysis and more superficial ones by the *Association Method* of Jung. Thus a person may show delayed reaction in responding to a word which bears relation to a painful idea, or a murderer, even if he does

not wince on being shown a bloody knife, may fail to make an association if the stimulus word alone is given.

The reason why many of the deeply buried complexes cannot easily reach awareness is that they are in *conflict* with conscious tendencies or principles of reality. But not only is there possibility of conflict between unconscious and conscious thoughts, but between opposing complexes within the unconscious itself. Unless one or another of these succeeds in reaching consciousness the individual may waver between opposing tendencies, live in perpetual struggle with himself, be unable to escape doubt or make decisions, and all action may become paralyzed. The fundamental significance of conflict in psychopathology is that the struggle takes place in the unconscious. Therein lies Freud's contribution and in that it differs from all other notions of conflict at present or previously entertained. The old concept referred to conflict between intellectual ideas, the new refers to "conflict between unconscious impulses toward incompatible ends." Emphasis is put on this because the conception of unconscious conflict forms one of the cornerstones of the psychoanalytic structure. One should, therefore, clearly distinguish between a conscious, purposive conflict and an apparently unmotivated, but in reality very significant, unconscious one. The difficulties of an only son, intensely attached to his mother, in the choice of a bride or adaptation to married life are the result of unconscious conflict; the problem of choosing a suitable business partner generally involves a conscious one.

Obviously there must be some higher "force" which is capable of preventing unconscious ideas and complexes from reaching consciousness and of compelling them to live independently, as it were, in phantasy. If the conception of unconscious conflict is correct some mental mechanism must be invoked in explanation of the phenomenon. There must be *resistance* to the emergence of the affected memories which are already in conflict and are apt to engender even greater

conflict should they be allowed to come to the surface. The process of keeping them down is known as *repression*. Freud very early came to this fundamental conclusion when he made the profound observation that the "force" which resists the recall of memories, of the unconscious wishes or strivings, is the same which causes repression. Everything repressed, obviously, is unconscious, but it does not follow that everything which is unconscious is repressed. Many primitive impulses are from the beginning and forever remain unconscious. The significance of repression lies in the fact that it prevents conscious conflict, often at the risk of engendering unconscious conflict. Other factors must come into play to resolve the latter in a satisfactory manner lest they lead to inner fermentation which must find some outlet in anomalies of behavior or the production of neurotic symptoms. Repression should be clearly differentiated from suppression which is a purposive exclusion of ideas from the field of conscious attention.

So much has been said about affective tone, about energy attaching to ideas and groups of ideas, of a force pervading complexes and capable of causing so much fermentation that the question naturally arises, whence comes this energy. The answer to this depends upon one's point of view and the formulation of one's theories. Some dispense with this concept altogether, others speak of a natural or universal force, still others of a soul, a conscience, and so on. McDougall conceives of a specific affective tone which accompanies every instinct. Thus fear is the affective energy of the instinct of flight, anger that of the instinct of pugnacity, and so he pairs every instinct with an appropriate emotional reaction which gives it, so to speak, its propelling force. He derives the affective tone from primary instincts and combines both the emotions and instincts into complex sentiments with their variously compounded emotions. This driving power, or purpose behind the action, of the instincts determines behavior and accounts for departure from normal adaptive reactions;

which makes McDougall's psychology dynamic, or as he puts it, *hormic*. More physiologically minded psychopathologists visualize the endocrines as the source of the driving power of the instincts.

Psychoanalysis, too, maintains that the affective energy is derived from primitive impulses. This is spoken of as the *libido*. But aside from the fact that Freud conceived of the theory of the libido long before anybody else, he applies the term only to the energy derived from sex impulses, from the instincts of procreation, in contradistinction to the energy derived from the ego impulses or instincts whose immediate task is the preservation of the individual. This psychic sex energy, or hunger of the sex impulses, differs from other forms of psychic energy. It is an energy within the individual's unconscious, and not, as with Jung, the universal vital energy or *élan vital* whose general teleologic purpose is adaptation and whose failure to surmount obstacles leads to more primitive ways of adaptation. Jung's use of the psychoanalytic term in a sense different from its accepted connotation only leads to confusion, and it would be better for his psychology were he to adopt another term and leave the word libido with its original meaning. One may quarrel with the psychoanalytic concept, question its validity, reject it altogether, or substitute another term, but one may not misuse it.

By libido, then, is understood the craving for the satisfaction of sex-instincts just as hunger and thirst satisfy the needs of growth or metabolism. In a measure the libido is "prior to sex," it is the primitive energy or propelling force of the sex instincts. This psychic energy pervades the unconscious, is conceived of as capable of attaching itself to ideas and groups of ideas or complexes, of investing parts of the body, of being arrested or fixed at certain periods or stages in the development of the infant and child, of floating freely within the unconscious, of turning in upon itself, as it were, and clinging to the ego, of being projected outwardly and attached to

objects or persons, and of turning back or receding to previous levels.

The investment with or activation by the energy of the libido of various parts of the body or of objects is spoken of as *cathexis*. This so-called "genitalization" of parts will be discussed more freely in the formation of neurotic signs and symptoms. Here it is merely necessary to define the theoretic concept. Attachment of the libidinal energy at certain stages of development of the individual, or undue intensification at those periods, and its failure to progress from stage to stage is known as *fixation*. That is, there is an arrest of the impulses at various phases of development, and the points at which such an arrest occurs are known as points of fixation. From the investigation of the unconscious mechanisms of neurotic symptoms these points of fixation have come to be regarded as representatives of phases occurring normally in the development of the libido. The first phase has come to be known as the *oral* (of which thumb-sucking is the paradigm); coterminous or immediately following is the *anal* (also *urethral*). Both are pregenital, represent auto-erotism, and are related to nutrition and excretion. The anal phase is conceived of also as the sadistic and the urethral as exhibitionistic. Following these appears the *genital phase*, with the supremacy of the procreative organs and their investment with libido, which can henceforth develop into the adult or mature form, as happens ultimately at puberty. The very earliest phase when the whole body or ego is invested with the libido is known as *narcissistic*, or more generally, auto-erotic. This condition has been compared to sleep in which the libido is withdrawn from the outer world or objects of reality and directed to the body itself. That phase of the libido which is directed to bodily organs become the *ego-libido*, while the energy directed to outer objects or persons is known as *object-libido*. Withdrawal of object-libido and its introversion, its turning upon the body or self, converts it into narcissistic libido. Finally, the

ability to shift the object-libido, or to "transfer" it from one person to another, is known as *transference*. This, again, is one of the most fundamental concepts in psychoanalysis, underlies the principle of *identification* of one person with another and is made use of in the psychoanalytic treatment of the neuroses. Transference is looked upon as a love relationship, though it may be either positive or negative. The loose attachment of the object-libido and the possibility of shifting it more or less easily are regarded as characteristic of certain neuroses (particularly of hysteria), which are therefore known as transference neuroses.

The importance of the conception that there are numerous developmental phases of the libido and that points of fixation exist in the unconscious lies in this, that the theory of *regression* is intimately bound up with it. By regression is understood a return flow of the libido to earlier points of fixation whenever outer or inner conflicts make adjustment to reality difficult or impossible and necessitate a return in phantasy life to simpler modes of adaptation. It is a psychic process away from unpleasant adult adaptation to the easier less complex and more secure existence of early life. Jung, who has practically abandoned the whole sexual theory, hardly does more than lip service to repression and, as we have seen, conceives of the libido as a universal force, concedes the existence of the psychic process of regression. For him, however, it is merely a return to the more secure maternal protection of early life. Instead of hurdling difficulties, regression is resorted to as an easy mode of hiding behind infantile behavior, thereby escaping painful tasks. Normally the adult is capable of over-coming obstacles even at the expense of suffering. If this becomes too difficult there may be temporary or partial hurdling of the difficulties and partial regression. When there is total inability to resolve conflict, overcome obstacles or face reality, there is complete regression to lower levels of adaptation.

Though it has been repeatedly stated that in our present state of knowledge it is not yet possible to speak of psychologic concepts in physiologic terms the notion of regression permits the use of an anatomic-physiologic analogy. The existence of what is known as "release" phenomena is derived from Hughlings Jackson's studies on the Evolution and Dissolution of the Nervous System. Therein he pointed out that directly destructive pathologic processes, organic disease, can give rise only to negative signs, namely, such as bespeak loss of function; while positive symptoms, for example, hallucinations or abnormal movements and conduct, represent an activity which can only be the result of the function of lower levels released from the control of higher ones. When for some reason, be that physiologic or pathologic, the guiding and controlling activity of higher cortical or other levels is in abeyance, lower centers may either remain inactive or function independently. In other words one may conceive of a physiologic regression from complex high function to the more simple lower activity, perhaps from the higher to the lower layers of the cerebral cortex or from the cortex to the lower association tracts or even to the deeper-lying centers in the basal ganglia of the brain.

Allusion has been made to a guarding power which reviews, as it were, the admissibility into consciousness of ideas seeking entrance from the unconscious. This guardian of conscious reality is conceived of as having the power of rejection, of standing sentinel and of deciding on the compatibility or incompatibility of primitive thoughts or impulses with higher standards of ethics or morality. In this is embodied the notion of the *censorship*, admittedly a figurative, hypothetical, but, none the less, very useful one. The censorship idea is invoked most commonly in the interpretation of dreams when the "censor" is supposedly asleep and least effective. But many of the complexes which strive to, but cannot reach consciousness directly because of the resistance of the censor-

ship or conscious ego may and often do find outlet by disguising themselves in some acceptable form. Many are the disguises devised by the libido to elude or deceive the censorship, and a number of concepts have been introduced to explain the unconscious mental mechanisms. But whatever the devious way or peculiar disguise adopted to pass censorship and avoid conflict inexplicable behavior or curious conduct are thereby made possible.

It sometimes happens that the emotion or libido energy is attached in the unconscious to an objectional idea which cannot thus become conscious without causing painful conflict. The energy then becomes detached, dissociated, from the objectionable idea, and is shifted, transferred, to another which can pass muster. This is known as *displacement* of affect, a mechanism commonly employed in the formation of dreams and not infrequently in certain forms of wit. In such instances one finds unconscious thoughts represented by indirect allusions. At times an important idea is suggested by a flippant expression, the significant part being only slightly alluded to; at others there is overemphasis of a quite unimportant thought. The excess of anger or emotion displayed on apparently irrelevant occasions in response to minor incidents illustrates the mechanism of displacement. Thus one may engage in a violent quarrel with one's wife over a minor extravagance or an insignificant social error, but in reality over a deep-seated antagonism of which the harmless occasion is merely symbolic. Or one may have a fist fight with a man against whom one harbored an old grudge because he made a slightly offensive remark which if made by a friend would not even have been noticed. The importance of such incidents lies in the fact that at the time of their occurrence the "guilty" party will assert with all vehemence that the slight spark was the true cause of the conflagration and will be incapable of appreciating the actual reason just because it is unconscious.

Occasionally a repressed idea or complex is regarded as belonging to somebody else. This mental mechanism is known as *projection*, and involves shifting on to others hidden fears and wishes peculiar to oneself. In its extreme form projection gives rise to delusions characteristic of the insane. In some of its phases jealousy illustrates a simple instance of projection, and attributing to others weaknesses which we ourselves possess is another illustration of the mechanism. The very violence of the emotional outburst in many cases, as for example in those involving the question of hypocrisy, suspiciously betokens the existence in one's own mind of an unconscious mechanism similar to that which is resented in others. It is truly a case of the pot calling the kettle black. The uncontrollable jealousy or ideas of infidelity in an elderly husband belong to a deeper projection mechanism. Here the husband's feeling of impotence to execute his desires is translated to mean that others must have an equally ardent desire for the love object which he himself cannot possess. From this it is but a step to the false conclusion that the wish is actually carried out. Sometimes the process is reversed, and the unconscious desire on the part of a virtuous woman for the love of another man finds outlet in the projected idea that the husband is faithless.

As a refuge from conflict deep-seated complexes often are withdrawn into what may be termed logic-tight compartments. This results in the mechanism known as *dissociation*, and permits of the existence side by side of generally incompatible and sometimes diametrically opposed ideas. The utter inability to appreciate in oneself what is so obvious in others, because of the unconscious nature of the thoughts or the motives for action, explains the incongruous behavior which is commonly observed in otherwise intelligent beings. Therefore one need not be astonished at the belief of a physicist in spiritualism or of a religious physiologist in immaculate conception. The same mechanism of dissociation explains

why some persons extol in all conscious sincerity peace and love and at the same time engage in war and practise cruelty. Indulgence in contradictory ideas, therefore, is not necessarily a sign of unintelligence. The emotional, unconscious nature of the motives accounts for their inaccessibility to reason. In those cases the right hand literally cannot know what the left does. To a great extent unconscious dissociation is a "normal" defensive mechanism; in its highest, exaggerated pathologic form it expresses itself in complete splitting of the personality. Where the dissociation is conscious, purposive, in the interest of deceit, it is known as hypocrisy; but inasmuch as it sometimes is difficult to draw a sharp line between conscious deception and unconscious dissociation it is not always easy to distinguish between the two. From what has been said thus far of dissociation it is hardly necessary to point out the fundamental difference on this subject between the views of Freud and those of Janet who first introduced the concept. For Janet dissociation is a splitting of the stream of consciousness and not an instinctively motivated mechanism. In physiologic terms dissociation might be conceived of as representing varying degrees of decerebration—a very bold view.

Another mental mechanism, in a measure akin to dissociation, at times the result of it, is that known as *rationalization*. Actually this is "a process of self-deception by means of adventitious reasons" in order to give at least the semblance of logic or plausibility to ideas and actions which are otherwise contradictory or incongruous. Here, too, the process arises, as a result of repression, out of the need of avoiding the conflict which must necessarily ensue from the clash of opposing emotions. By this mechanism a person may delude himself, more rarely others, into believing that he wishes consciously what in reality he does not, and defend with an appeal to logical reason what is contradicted by facts of experience. Rationalization is so universal a process that it may be con-

sidered almost "normal." The smitten swain rationalizes the want of pulchritude in his beloved by idolizing charms and virtues she does not possess; the man convinced of the superiority of his party finds reason to believe that its candidate with notoriously unenviable traits alone is a paragon of statesmanship; the chauvinist defends with great vehemence and numerous reasons flagrant acts of his country which he would unhesitatingly condemn if committed by other nations. To those who will not or cannot see, rationalization is a necessary process. It saves one from becoming ridiculous in one's own eyes, but it achieves its purpose at the expense of a sense of humor.

As a further refuge from serious conflict it sometimes becomes necessary to repress libidinal energy very effectively and to banish it deep into the unconscious or, rather, to low somatic levels. In this way the dissociated affect is disposed of by becoming attached, as it were, to bodily organs. The mechanism is known as *conversion*, and is seen to be operating in the manifestation of neurotic signs and symptoms. Because the various parts of the body are assumed to be invested with libidinal energy they are theoretically regarded as having become "genitalized." But whether "genitalized" or not the mechanism is extremely common in hysteria where one regularly encounters physical signs as the result of mental conflict. Thus one may observe weakness of a hand in a girl having conflict over sex gratification; paralysis of an arm in a soldier who cannot endure the trials of war; vomiting, headache or fainting spells in a woman for whom sickness alone can serve as an escape from the unwelcome attention of her husband; and so on with a host of other physical expressions of inner neurotic conflict.

The existence at the same time within the unconscious of ideas or complexes charged with opposite emotional tones is known as *ambivalence*. This valuable concept, introduced by Bleuler, seeks to explain the simultaneous possession with

regard to one individual such opposing affective reactions as love and hate, regard and contempt, trust or suspicion. In such cases it is assumed that for unconscious reasons there is a shifting to and fro of the emotional charge from one idea to its direct opposite. Among neurotics this mechanism is particularly common, and one may observe, for instance, that a hysteric unconsciously inflicts pain on the very person she loves best. Repulsion and desire thus find expression in hate and love. Sometimes a mechanism known as *compromise formation* occurs between various repressed ideas; that is, there is partial gratification of conflicting emotional tendencies. The instinctive impulses thus find some outlet without conscious recognition of the fact. This mechanism is conceived of as operating in the formation of symptoms where the instinctive cravings are satisfied after the infantile pattern of getting what one wants without giving up anything for it. Thus, through illness, the neurotic may win the affection she craves and at the same time escape unpleasant facts of life; but she thereby pays a price which demonstrates that after all one cannot both eat one's cake and have it. A more or less universal phenomenon, but particularly characteristic of the labile neurotic, is the mechanism which goes under the name of *identification*. The roots of this trace back to early life when the child naturally sees itself in the image of the parent, generally of the same sex. The son in most instances wants to grow up to be like the father and the daughter like her mother. This father and mother ideal, sometimes of an older brother, sister, teacher or other adult, persists throughout life despite inevitable antagonisms which crop up in the course of later development. The tendency, however, is not merely to identify the self with the immediate protagonist, but persons toward whom one has some emotional attachment with one another. For the neurotic with his easily shifting emotions simple ear-marks may serve for complete identification, parts are generally taken to stand for the whole, and a minor common

characteristic may serve to arouse either affection or antagonism.

Finally, also as the result of repression, there is the mechanism known as *reaction formation*. In effect, this is a function of many of the mechanisms previously defined. Actually it consists of the detachment of the affective tone from one set of ideas objectionable to the conscious ego and its shifting to another, opposite, group which is not. This, too, then, is a substitution process; but as it also manifests itself in over-reaction, in an over-compensatory way, the mechanism becomes one of *compensation*. As an example of reaction formation may be cited unbounded giving of charity, excessive piety or inordinate cruelty, each of which very likely represents an adult attempt to overcome unconscious impulses of an opposite nature. The obnoxious virtue of an impotent rake, the excessive prudery of a maladjusted spinster, and the ostentatious morality of an old repentant sinner, represent compensatory mechanisms. The well-known activities of public moralists and hounders of vice equally betray a reaction formation in that they can only gratify sexual craving in themselves by conjuring its existence and suppressing it in others.

Practically all the mechanisms thus far considered had to do with repressing tabooed ideas and keeping the original primitive impulses incompatible with conscious thoughts or facts of reality from coming to the surface. Essentially their purpose was to avoid conflict. Where the repression was successful normal adjustment resulted, where it was not neurotic manifestations came to the fore. But in many instances, also as the result of repression and in the interest of avoiding conflict, the primitive energy derived from sexual impulses is shunted away from its sexual object and directed to asexual and socially useful aims. The process involves substitution of socially acceptable objects as a means of vicariously gratifying sexual impulses. This is known as *sublimation*.

The commonest illustration of the operation of this mechanism is the frequent tendency to esthetic or poetic expression of love feelings which cannot find immediate objective sexual gratification. The view has now come to be accepted that out of these primitive instincts grew poetry, painting, sculpture and allied arts. Religion, too, shows sufficient traces of sex sublimation to warrant the conclusion that the procreative instincts served as its potent early inspiration. Friendship is no doubt a sublimated form of love life, and so are a great many socially valuable but less easily recognized by-products of the sex instincts.

The unconscious strivings thus far considered have been represented as primitive *wishes* which seek gratification in one way or another. As reality does not always permit it they find outlet in phantasy. Therefore all phantasy life is said to be characterized by those wishes. Among the numerous manifestations of that life the dream represents phantasy in its purest form. In the contents of the dream, therefore, one may see displayed practically all the mechanisms of the unconscious. Gratified and ungratified wishes, the successful or unsuccessful results of repression, all the primitive psychic impulses. From the point of view of psychoanalysis the dream is conceived of as a form of hallucinatory gratification.

This curious mental phenomenon has attracted the attention of man practically since the dawn of human thought. The dream no doubt was the matrix out of which came demons and spirits. In ancient times it nurtured oracles, fostered religion, gave force to prophecy, strengthened omens, determined conduct, and in many other ways served as a guide to destiny. We have seen how it was employed as a therapeutic measure in temple sleep. For a long time the dream was (in some respects still is) looked upon as unimpeached evidence of supernatural visitations. It occupied the minds of thinkers in all ages and was at all times interpreted as having some

meaning. Curiously, with the rise of more sober thought it came to be neglected and with the advance of science its significance was altogether ignored. Finally psychologists stripped the dream of all meaning and saw in it psychologic processes as the result of definite stimuli or sense impressions which served to activate buried memories. The stimulus, be that light pressure, exposure of the body or limbs, interference with breathing, disturbance of digestion, a sudden noise, or what not, is regarded as the immediate cause of the dream and recent or remote memories its substance. Why the stuff of which dreams are made is so weird, bizarre, senseless, psychologists do not attempt to explain. Possibly there is no sense to dreams, but saying that does not explain a phenomenon which must have some importance in psychic life.

Starting with that assumption Freud discovered certain facts which seemed to characterize practically all dreams. He observed the common tendency in all of them to the *transformation of outer or inner stimuli as well as ideas into visual images*. In many instances a number of component ideas seemed to be merged or, as it were, *condensed into one image*. At times there was not merely *condensation* but *distortion* of ideas. Another observation was the tendency to *attribute a common meaning to different ideas or objects*. That is, there was *identification* of diverse components. Very often there was *displacement of emphasis from primary to secondary elements*. In short there was a tendency to *poetization, symbolization and dramatization*. Further it was observed that the dream work was not bound by the elements of time, did not follow the laws of logic, and failed to respect waking social morality. All inhibited psychic processes, infantile strivings, disguised or overt sexual cravings seemed to appear in the framework of the dream. In short it had all the characteristics of unconscious thinking. Ultimately it became apparent that in every dream there is a surface story, the part

remembered, and another consisting of underlying psychic processes. The former is designated as the *manifest content*, the latter as the *latent content*.

Based upon numerous observations Freud concluded that the latent content of the dream represents the *fulfillment* of a repressed unconscious *wish*, which is of an infantile and sexual nature. As the unconscious may contain all sorts of ideas of hate and revenge, death wishes, perverted or incestuous desires, they must be disguised in some manner in order to appear in the manifest content. In their latent form they could not pass the preconscious censorship because they would conflict with conscious notions of ethics and morality. The dream therefore came to be regarded as a psychologic process which protects the sleeper against libidinous thoughts. Thus the dream bears close resemblance to a neurotic symptom. Occasionally the dream shows even in the manifest content simple wishes which express bodily wants, such as hunger, thirst or other immediate desires and their fulfillment in phantasy. The dream of a child that it has the toys which father refused to buy, of the hungry man that he sits at a feast, or of the beggar that he is a king in a palace illustrate the simplest types of dreams as wish-fulfillments. These obvious childish dreams like day-dreams of adults act as safety valves for phantasy. *Autistic thinking*, a concept introduced by Bleuler, is really a neurotic sort of day-dreaming and generally represents an unconscious type of thinking, divorced from logic and reality. When it appears logical it is still guided by obscure wishes and desires.

Most dreams require prolonged investigation and interpretation in order to fathom the meaning of the latent content. Psychoanalysis also regards the immediate sense impressions as stimuli which become interwoven and act in association with memories of the previous day and of days or years gone by. But in order to analyze the disguised and distorted fabric some effective method must be employed in interpreta-

tion. This is accomplished by means of symbols, the use of which has been the occasion of so much dispute. Jung, who denies all sexual connotation to dreams, adheres to the notion of symbols and regards the dream as a regression in phantasy to racial, phylogenetic, archaic modes of thought in which mythical and primordial images play an important rôle. This notion although very bold is not altogether original. Freud also speaks of typical dreams which embody primal phantasies or symbolic images which have a racial character, but he does not stress those symbols nor gives them an importance which Jung assigns to them. In the psycho-analytic sense all the unconscious psychologic processes of the dream are rooted in impulses which have not lost their primitive energy; that is, they have not been *abreacted*, hence their significance in the psychic economy.

Without entering further into the interpretation of dreams or critically discussing all the debatable and theoretical concepts regarding them, the following case may be cited as an illustration. A married woman dreamed that she was bathing together with her little girl. The water gradually began to rise in the bath tub and before she was aware the child drowned. Then she awoke. The author of this dream was a neurotic patient who consulted me from time to time. One day she came in quite excited because she had failed to menstruate and was sure that what she always feared so much had happened. She begged me to give her a certificate to "legalize" an abortion on the ground that her nervousness and ill health warranted interruption of pregnancy. I refused. The husband, who was a physician, was anxious that she have another baby and he would not consent. Several days later she brought the dream just related. The interpretation was as follows: Although every experienced woman knows that an embryo does not become viable before the fifth month the patient visualized a living baby the moment she conceived. In attempting to interrupt pregnancy

she wanted to kill that baby. She also knew that a baby grows in the womb surrounded by a bag of water. In the dream the living child takes the place of the one in her womb. The bag of amniotic fluid becomes a bath tub in which the waters rise and drown her child. The dream fulfilled a wish which she could not carry out in life.

It has been said that the dream utilizes apparently harmless and unobjectionable symbols to elude the vigilance of the censorship. In psychoanalysis these symbols or images are understood to have a certain constancy both for the individual and the racial group. The validity of this conception has been assailed on many grounds, and the possibility of assigning almost any meaning to a symbol has been made use of to show how weak psychoanalytic interpretation in general and that of dreams in particular can be. It may be admitted that the notion of symbolism forms a weak, perhaps the weakest, link in the whole psychoanalytic structure. Unbridled interpretation based on individual phantasy of course may vitiate the results of psychoanalysis. But having conceded as much it is fair to admit that there is a kernel of profound truth in the idea of symbols. Many of them have been derived from myths, fairy tales, religion, folklore, and poetry. The most significant, perhaps, are to be found in colloquial speech and particularly in wit and coarse humor. As a matter of fact the notion of symbols is older than psychoanalysis. Provided one has a sense of humor and does not make fetishes of symbols there is no danger in using them. The following interpretations are commonly used in psychoanalysis. They have the value of metaphors. It should be added that many symbols are regarded as interchangeable. Animals are supposed to represent children, king and queen father and mother. A house, particularly with ledges (breasts), is regarded as a female. In the dream water is supposed to be connected with the idea of birth, and so is swimming or rescuing. Going on a journey means dying, being pursued or attacked by

robbers is interpreted as a sexual assault. The sacred number three represents the male genitals, woods or a thicket the pubic hair, and a landscape the female genitalia. Planting and sowing stand for fertilization, flying or falling imply sexual relation. Elongated and upright objects, such as poles, umbrellas, implements, penetrating objects, knives and guns, elastic things, bellows, aeroplanes, the hand and foot, symbolize the phallus. Open spaces, closed spaces, narrow passages, caves, ships, rooms, cupboards and stoves represent the female procreative organs.

Among the theoretic concepts formulated by Freud to explain motivation of conduct is the one known as the *pain-pleasure principle*. In this one may recognize the psychological hedonism of Bentham and its philosophical parallel which goes back to Epicurus. Although Freud avoids teleologic implications he holds to the view that incentive to action is determined by the desire to avoid pain or derive pleasure; that all impulses are directed to an end, the attainment of which is accompanied by pleasure and their frustration by pain. In addition it is assumed that normally there exists a psychic tension, which results in pain if increased and in pleasure if relaxed or diminished. Thus "pleasure is in some way connected with a lessening or lowering or extinguishing the amount of stimulation in the mental apparatus," associated with the satisfaction of the sexual instinct, of those having to do with hunger, and possibly of others.

The pleasure principle is conceived of as the guide of all unconscious thoughts and actions and as the determinant of the conduct of infants and children. It is known, therefore, as the *primary principle or system*. It is entirely dominant in infancy which is characterized by the need or desire for immediate gratification of cravings, relief of tension and rest. In the unconscious this gratification may be purely hallucinatory. As one grows older immediate satisfaction of wants becomes less and less possible because of obstacles interposed

by reality; so that however strong the cravings may be their gratification must be temporarily or permanently deferred. A *secondary system*, known as the *reality principle*, is thus developed to guide more or less conscious, adult behavior. Obviously conflict must and often does ensue between the two principles of conduct. Where the primary principle alone is dominant, as it is in children and to a great extent in neurotics, there is a natural tendency to regression in order to give immediate satisfaction to cravings either actually or in phantasy. But the adult sense of reality interferes with this tendency to regression in phantasy and the secondary system enables the individual to find gratification in the outer world either by changing the environment, adapting oneself to it, or in some other way acting upon it. While the object of both the primary, unconscious, system and the secondary, conscious, system is to avoid pain, it is apparent that what may give pleasure to the one may cause pain to the other. Where the sense of reality inhibits immediate gratification, but is not successful in preventing regression, a circuitous gratification may result. This is what actually happens in the neuroses. In those cases a certain amount of tribute is outwardly paid to reality, but it is essentially phantasy which gets the satisfaction.

The great dynamic importance of primary impulses has been emphasized so much throughout the discussion of mental mechanisms that it is necessary to inquire into the nature of instincts. But the vastness of the subject and the want of unanimity regarding the number, kind, and influence of instincts forbids any lengthy discussion. All that can be attempted here is a definition and a brief outline of the two views which stress the affective tone of the primary impulses in the motivation of human conduct. McDougall defines an instinct as "an inherited or innate psycho-physical disposition which determines its possessor to pay attention to objects of a certain class, to experience an emotional excitement of a

particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or, at least, to experience an impulse to such action." Stated differently an instinct is a tendency to act or react in a specific manner without previous experience on the part of the individual. It is an inherited reflex. McDougall enumerates a great many instincts, for example, fight, flight, parental (sex), self-regard, submission, etc., each of which is accompanied by an appropriate affective tone which he regards as the specific emotion. Feeling, thought and conduct are directly determined by the various instincts and their emotions; while character and temperament are the result of this qualitative and quantitative combination into higher sentiments. Proper balance between them results in correct adjustment to the environment, while disturbance in this balance is expressed in maladjustment or neurosis. The importance of McDougall's views lies in the fact that, like Freud, he ascribes to primary instincts the motivation of conscious, intelligent behavior; on the other hand he emphasizes purpose or teleology to a much greater extent and does not attribute dominance to the sexual instincts.

Without defining precisely the nature of the instincts Freud divides them into two large groups: the *sex instincts* and the *ego instincts*, the former having to do with love life the latter with nutrition. The libido or primary energy is derived from the sex instincts, which are thus also known as *libido instincts*. Latterly Freud has also spoken of a *death instinct*, which stands more or less in opposition to the other two instincts. In a way he defines instinct as a tendency innate in living matter, impelling it towards the reinstatement of an earlier condition. The death instinct would then be regarded as a striving to return to the state of inorganic matter. The highly speculative death instinct Freud sees operating in tendencies to self-destruction and in lesser degree in masochism, the death instinct having become merged with the

libido. Conversely sadism is the projection outward of the instinct of destruction. The libido energy is conceived of as capable of being detached from the sex instincts and of investing the ego instincts. It then becomes *ego* or *narcissistic libido*. All the libido primarily accumulated in the unconscious is originally directed to the ego. This is known as *primary narcissism*. As the individual grows up the primary energy is directed toward the outer world (*object libido*). When later in life, for reasons of conflict with reality, the libido is withdrawn from objects and again turned upon the ego *secondary narcissism* results. Narcissistic libido, therefore, may be defined as desexualized libido.

Much of what has been said so far is highly speculative and theoretical and some of it purely hypothetical. It represents what Freud calls metapsychology. The various concepts were introduced in answer to many questions which have arisen in the course of the development of psychoanalysis. To round out the theoretical structure Freud evolved three other concepts, namely, those of the *Id* (first introduced by Groddek), the *Real Ego*, and the *Ego Ideal*. The id (*das Es*) represents the whole unconscious mass containing all the primitive impulses surcharged with the energy of the libido. In more or less opposition to the id stands the real ego. This is in part derived from the unconscious id itself, but is modified by the outer world through the intermediation of consciousness. That is, the objective ego is made up in part of inner impulses and outer forces which are brought to bear upon it. Education, civilization, culture, ethics, aesthetics, moral tradition, help to mould the real ego which thus grows up in opposition to the sex instincts and other unconscious strivings. It represents conscious individuality, and, being exposed to social approval or disapproval, determines in large measure the social conduct of the individual. By its ability to face reality and grapple with the facts of life, the real ego insures the survival of the individual in the struggle for existence.

Standing between the id and the real ego is the ego ideal. This is, so to speak, a pure phantasy ego, and is really the possession of the unconscious. It is built up essentially from within and is rooted in all human, possibly racial impulses. Being a phantasy reaction it can lead a purely psychic existence, independent of reality. But aside from inner qualities the ego ideal also acquires outer attributes derived from identification with the father image under the influence of social ideals. Guided as it is by the pain-pleasure principle it is moulded by the effects of reward and punishment. It generally seeks to avoid reality. It is characterized by imagery and symbolism and is the stuff of which poetry and dreams are made. The ego ideal acts as the critical functionary of the unconscious, represents the "inner conscience" and is in effect the censor of the dream and source of repression. It is a *super-ego*. The inner sense of guilt, the feeling of inferiority, is derived from it. The ego-ideal, then, is an intrapsychic force, and is conceived of as the heir of the Oedipus complex which it ultimately displaces.

The real ego stands in relation to both the ego ideal and the id. The true ego is supposed to function as the representative of the outer world of reality with regard to the id and as the representative of the id with reference to the ego ideal. As a consequence the real ego may be assailed by the outer world, by the id, and by the ego ideal. There is thus a constant interplay between the three divisions of the psyche. The ultimate result of this is personality, or individuality. Character is made up of the sum total of the two phases of the ego, silhouetted, as it were, against the id. Obviously the two phases of the ego do not and cannot always harmonize. It is as a result of this conflict that both normal and neurotic character develops. The greater the harmony the better the adjustment, the greater the conflict the more likely the development of neurosis. In normal persons there is a fairly balanced development of the two sides of the ego. Hyper-

trophy of the one or the other leads to gross departures from the normal, and excessive development of one at the expense of the other to that one-sided dominance which automatically eliminates conflict. Thus if a person have an all-powerful phantasy or ideal ego and a diminutive real ego or sense of reality there can be no conflict; if he have a strong sense of reality and weak ideal ego there need be no conflict.

The thief may illustrate the possession of a strong real ego and weak ideal ego. Having a good sense of reality he satisfies a perfectly reasonable desire for pleasure and comforts by taking the things he needs. In doing so he reckons only with the facts of reality, namely with the proper method of procedure and with the desirability of avoiding detection. Outer force alone can deter him since he has no ideal ego, no inner conscience, to sit in judgment upon him. Similarly, the woman who goes to others for pleasures which her husband cannot give shows a good real ego and a weak inner sentinel. In neither instance is the man or the woman a true victim of conflict. But when the man does not yield even to urgent want and the woman to a very real need, because of a strong ideal ego, psychic conflict must ensue. Conversely, the ascetic is an example of the man who has an hypertrophied ideal ego and a poor real ego. A man thus dominated by phantasy eludes conflict with reality. Action is paralyzed in him. Should a person be so dominated by the ideal ego as to fall a complete prey to his phantasy, withdraw altogether within himself, and lose all touch with reality he must lead a life of delusions. This is what actually happens in the psychosis known as dementia precox. In lesser degree one observes this in religious fanatics. There are all grades in the hierarchy.

We have thus far considered all the mental mechanisms from the point of view of psychoanalysis. As has been repeatedly stated much of it is purely theoretical and from the practical point of view could of course be dispensed with. A number of the concepts are admittedly subject to dispute.

Many no doubt will be revised, modified, amplified, substituted or altogether discarded. But there are several which cannot be dispensed with at present if one would speak the language of psychopathology, and there are a limited few which are absolutely fundamental to the theory of psychoanalysis. Among the latter must be included the following: 1, The theory of a dynamic unconscious; 2, The theory of unconscious conflict; 3, The theory of repression; 4, The theory of transference; 5, The concept of infantile sexuality.

CHAPTER III

ETIOLOGY OF THE NEUROSES

Perhaps the most obscure chapter in the whole field of the neuroses is that dealing with causes. Although a great many theories have been advanced it is to be feared that their very profusion is in inverse ratio to our actual knowledge. In some case they merely represent verbal cloaks for ignorance. It must be confessed, therefore, at the very start, that despite the accumulation of knowledge of the manifestations of the neuroses and of some of the mental and physical processes underlying them, the ultimate cause or causes are unknown. It is true that psychoanalysis furnishes at present the best insight into the etiology of the neuroses, but there are a number of other theories, each of which has more than a grain of truth. None quite explains all the phenomena. All theories, including psychoanalysis, assume some sort of constitutional predisposition, some hereditary factors, as the fertile subsoil in which neuroses take root and by virtue of which they thrive. What those constitutional factors are remains obscure. The vague notions of neuropathic or psychopathic constitution, degenerative tendency, defective *anlage*, or what not, are invoked for want of more precise knowledge. The French school, with Janet as its exponent, particularly emphasizes this view. He, it will be recalled, stresses dissociation on the basis of constitutional tendency, but he does not actually explain why the dissociation occurs. The more modern, dynamic, psychology puts greater emphasis on developmental, environmental and other extraneous factors, even though a constitutional background is still assumed. In effect, nobody knows what the ratio between inherent predisposition and

environmental influence actually is, nor the exact mode of their interaction.

That there is a fixed, if not unalterable, constitutional factor is, of course, conceded by everybody. It is commonly observed that children born of the same parents, raised under precisely similar conditions, exposed to identical family influences, confronted with equally difficult situations, react differently to the exigencies of life. Some of those characteristic individual reaction patterns may even become evident very early in life, almost before environmental influence has had opportunity to become effective or the budding mind has sufficiently matured to react in more than simple reflex ways. One child is sensitive, introspective, moody, cries easily and in many other ways finds it difficult to adjust to the unpleasant restraints imposed from birth onward; another, more stable perhaps, easily fits into the same scheme of things. Comparable situations may be observed in adolescents and adults in their reactions to the vicissitudes of life. One man loses a leg, promptly gets an artificial limb, and returns to work determined to make the best of his disability; another, sustaining a similar injury, finds it almost impossible to adjust properly to conditions and becomes a burden to himself and others; still another deserts his previous ways, gets himself a tin cup, and henceforth prefers to sit on a street corner begging alms.

Granted the influence of heredity, its exact relationship to the causation of the neuroses still remains unknown. A great deal of loose talking and even more loose thinking obscures this phase of the problem. Despite the exactness of the Mendelian laws of heredity, guiding facts are lacking to warrant the precise applications of those laws to the neuroses. Clinicians untrained in biometrics invoke all sorts of so-called hereditary factors in antecedents and collaterals to account for the appearance of neuroses, as if those factors actually represented well-defined unit characters. Thus one may

find it stated that the occurrence in some members of a family of such complex conditions as alcoholism, epilepsy, prostitution, homicide, gambling, thievery, radicalism, talent, genius, organic psychoses and even definite diseases of the nervous system such as chorea, apoplexy, multiple sclerosis and other degenerative conditions, is the hereditary cause of obsessions, hysteria, neurasthenia or other neuroses. Without questioning the validity of the application of some of the facts it may be asserted that the generalizations just mentioned, unbridled and unsupported by evidence as they are, only serve to muddle a problem which is sufficiently difficult in itself. The nervous system of man is too extensive, the human mind too complex and the possibility of behavior reactions too complicated for facile generalizations. In addition, the numerous pathways, centers, tracts, association fibers, and levels of the nervous system are so fixed by eons of evolution that no accountable number of generations, nor even a few millenia, are sufficient to cause structural variations to the extent of nullifying heredity or altering function. Nor is anything known of the selective affinity and specificity of action of disease, drugs, chemicals, poisons from within or introduced from without, on the function of the nervous system and the transmissibility of altered structure or functions. So far as the neuroses, therefore, are concerned one must be satisfied with the general, and rather modest, statement that heredity plays a very definite, highly important, perhaps underestimated, role in their causation, but that its exact mode of operation is unknown.

The somatic, organic, or pathologic theory of the neuroses is based on the assumption that every departure from what is commonly regarded as normal behavior is the result of some molecular biochemical or physical alteration in the structure of the cerebrospinal and vegetative nervous systems, the departure varying in direct proportion with the quantitative or qualitative changes which take place. This view is based upon, and is a corollary of, the accepted proposition that all

normal mental activity is the expression of the function of the nervous system, and that interference with that function results in abnormal mentation. It is further based on the observed fact that demonstrable pathologic changes in various organic diseases of the brain, such as arteriosclerosis, alcoholism, senile conditions, tumors of the brain, cerebral injuries, general paresis, and various infections or degenerative diseases, may give rise to mental symptoms which are removed merely in degree from the lesser psychic manifestations of the neuroses. Thus one often observes in organic diseases of the brain depression, exaltation, irascibility, self-accusatory ideas, alteration of mood and temperament, memory disturbances, delusions, hallucinations, conduct disorders, unsocial behavior, character and personality changes, and a host of other symptoms. From this it is reasoned that where similar mental disturbances occur without demonstrable pathologic changes there must still be some organic alteration of the nervous system to account for the symptoms, and that with increase in knowledge of the anatomy and physiology of the nervous system, of biochemistry, biophysics, ultramicroscopy and so forth, it will become possible to correlate every departure from the normal with definite physiologic and structural alterations.

Based upon this view mental disease has been divided into organic and functional. But exception has already been taken to the concept of functional disease as meaningless. If all mental processes are the direct result of the functioning of the brain, just as digestion is a function of the stomach or urinary secretion of the kidney, then every alteration, whether demonstrably organic or not, is functional. If, on the other hand, in opposition to organic, the concept functional is used in the sense of psychogenic, then it becomes contradictory if not confusing. Certainly those who uphold the theory of psychogenesis should discard the word functional as worse than meaningless.

A number of conditions are said to be capable of producing those minute pathologic changes which are regarded as the cause of the neuroses. Among these fatigue holds the most important place. According to this view long sustained mental and other activity, or excessive stimulation, draws upon the store of reserve energy and increases the noxious products of metabolism to the extent of causing varying degrees of fatigue up to the point of exhaustion. All this is in turn caused by the rapid oxidation of glycogen or simple tissue foods and by the accumulation of carbon dioxid, split proteins, various acids and bases, simpler nitrogenous and other waste products. Mott particularly favors this view, which is based upon Crile's demonstration of actual cellular changes in the brain following intense fear, prolonged starvation, or undue physical exhaustion. Excessive sexual intercourse and oft-repeated masturbation are also said to be capable of inducing mental fatigue with consequent neurotic symptoms. Any emotional shock, then, as the result of sudden fright or terror, acute anxiety, or prolonged worry, provided it leads to the mental exhaustion referred to, will precipitate and actually cause mental disease. In addition, acute and chronic infectious diseases, in which toxic products presumably act on the nervous system, may bring about those pathologic changes which in turn give rise to neuroses or even psychoses. The toxic-infectious deliria belong to this group. Local trauma to the head causing physical commotion of the brain, that is, concussion, is held by many to be responsible for numerous ill-defined mental symptoms, an assumption based on the occasional findings in the brains of persons dying from concussion without demonstrable gross injuries to the skull or brain. Alcohol, too, if used to excess, and possibly other chemical poisons, may act like fatigue products. In view of the well-known fact that loss of self-control, poverty of mental coordination, emotional instability, and finally suspension of all higher cerebral functions progressively

become manifest in the process of acute intoxication, the prolonged use of alcohol is regarded by some as one of the causes of the neuroses. Aside from the fallacy of reasoning in such a view it leaves out of consideration the opinion strongly held by many that addiction to alcohol is the result rather than the cause of neurotic personality.

It may be readily admitted that there is considerable truth to the pathologic theory, but it fails to take into account a very important, perhaps vital, etiologic factor. Indeed, it altogether begs the question why only a small number of persons exposed to some of the conditions just mentioned develop neuroses while the very vast majority do not. Emotional shocks of exactly the same intensity, administered under approximately similar conditions, will induce neuroses in some people, psychoses in very few others, and leave the rest unscathed. The same thing is true of acute infectious diseases, fatigue, and trauma. One may, therefore, look upon them at best as precipitating factors and not as ultimate causative agents; that is, sparks capable of causing conflagrations in individuals already possessing explosive material. What this material is remains obscure, unless one assumes that it is constitutional predisposition or heredity. While, therefore, organic disturbances may be the immediate cause of mental symptoms (just as psychic injury may precipitate organic disease) distinction should be made between initiation or precipitation and causation.

The physiologic theory obviously also assumes the existence of definite changes within the brain, but not to the same extent as the pathologic theory. Here we are supposedly dealing with a specific alteration in the normal physiologic function of the brain. A breach at the various synaptic junctions between the cell bodies and their protoplasmic processes is assumed to interfere with the passage of stimuli from one cell to another. A lowered threshold accelerates and a raised threshold prevents the passage of stimuli, while,

according to Cajal, an avalanche reaction overcomes all resistance. The physiologic interruption of continuity at various levels of the neuraxis not only prevents the centrifugal and centripetal stimuli from passing to and fro but actually is held responsible for dissociation of one part of the cerebrum from another. This type of physiologic dissociation presumably releases lower centers from the control of higher ones and permits of independent activity of various parts of the brain. If the interference with the passage of stimuli occurs in the association pathways of the highest part of the brain, the cortex itself, the dissociation takes place at the correspondingly high psychic levels and gives rise to the numerous mental manifestations of the neuroses. Breaches at the synaptic junctions of lower levels in turn are supposedly capable of giving rise to paralyses, anesthetics, abnormal movements, and a host of other physical symptoms. In this one may see foreshadowed the concept of physiologic decerebration, a view put forth by S. A. K. Wilson in his description of severe types of hysteria whose clinical manifestations bear close resemblance to decerebrate rigidity on definite pathologic basis.

A number of theoretic postulates are involved in the physiologic theory. First, that thought and action are the result of activity within the brain cells. Second, that this activity is capable of being transmitted through the protoplasmic continuations of cells over synaptic junctions. Third, that chemical or physical processes within and without the organism are capable of setting up activity within the cells; that is, there is a process of stimulation. Fourth, that the nerve cells can be prevented from functioning, the stimuli can be interfered with in their passage from one cell group to another, or they can be shunted from one pathway to another. In other words, there can be inhibition of function. Fifth, that there are cortical and lower level patterns, organic impressions or memory engrams, in the cells of the brain,

capable of being called into direct or reflex activity by various stimuli acting upon the nervous system. Finally, that all mental activity may have an overtone of feeling, a certain emotional coloration; which is assumed to be in some way connected with the functions of the thalamus or is the result of general visceral activity. It still is a debatable question whether the emotion precedes the mental process or follows it. The James-Lange theory deals with this phase of the problem. However it is a fact that visceral disease causing reflex pain is capable of inducing psychic changes.

If all that has been said so far is true of the normal functioning of the brain, then any disarrangement is capable of causing variations in that function sufficient to give rise to neuroses or even psychoses, the intensity of the reaction merely depending on the extent of physiologic disorganization. However much truth there is in this mechanistic, "sensational," or materialistic view, it leaves unexplained a great many problems and certainly does not answer the persistent ultimate query why the variation of function occurs in one person and not in another. Indeed, many of the concepts used, particularly the one dealing with inhibition, are entirely theoretical, and there is at present insufficient evidence by which to test their validity. Hollingworth's psychologic concept of *redintegration*, namely, the reinstatement of a complex idea upon the occurrence of one of its parts, as an explanation either of normal or neurotic behavior, is altogether too simple and does not explain much besides. Nor does the more recent formulation of *eidetic psychology*, which deals with the ability, said to be especially characteristic of young people, to reproduce images distinct from memory and after-images, throw much light on the genesis of the neuroses.

The behavioristic theory, though dignified as a special branch of psychology, is but an extension of the physiologic concept of conditioned reflexes. Behaviorism discards the notions of conscious and unconscious and makes no distinction between

physical and mental. All thought represents a complex reflex response, indeed is but the echo of conditioned motor activity. That is, from infancy onward reflex patterns which express themselves in motor activity are laid down. Their graduated complexity ultimately gives rise to purposive action which is called intelligence. The highest motor activity as expressed in speech, particularly related to the muscles of the larynx, represents thought. Experience gained through training, by means of trial and error, alone serves to integrate the simplest reflexes into ever more complex ones. Provided one can direct the integration of those reflexes, that is, establish the conditions, one can, so to speak, create physiologic pathways and build up the highest type of what is known as intelligent behavior. Should there be failure of integration or subsequent disintegration of already formed reaction patterns, anomalies of behavior which might be called neuroses would then result. Now this view, as is well known, is based upon Pavlov's discovery of the physiologic responses known as conditioned reflexes. Allusion has already been made to them in the chapter on The Development of Psychopathology. Here it is sufficient to say that Pavlov and his followers have built a comprehensive psychology on a few profound but limited observations and that the facts at hand are not sufficient to warrant sweeping conclusions. But they have shown that by breaking up a number of conditioned reflexes in dogs one can produce in them a state of demoralization which bears considerable resemblance to what might be called neuroses in man. Pavlov has also developed the theory of internal inhibition, which is the result of interference with the conditioned reflexes. Finally, it has been shown that children and neurotics acquire and lose conditioned reflexes comparatively easily, that imbeciles and idiots form fewest and take longest to establish them, and that in isolated instances one may by habituating a patient to difficult situations overcome old symptoms. That is, one may succeed in destroying a pre-

viously conditioned reflex, for instance a deep seated, unreasonable, fear, by gradually establishing a new set of reflexes which do away with the phobia.

The Glands of Internal Secretion.—Various attempts have been made to correlate the manifestations of the neuroses with disturbances in the functions of the glands of internal secretion and to explain character and temperament in terms of the physiology of the endocrines. This view is based on the hormonal and neural relationship which exists between the nervous system and the ductless glands, an intimacy of relationship which is attested anatomically, physiologically, pharmacologically, and clinically. But in the present state of our knowledge it is impossible to state exactly what that relationship is and in how far it is reciprocal. Observation warrants the statement that psychic stimuli may activate the glands of internal secretion and that both normal and perverted function of the endocrines is capable of inducing psychic changes. In excessive or unbalanced activity of the thyroid gland, for instance, one may observe marked emotional alteration in the form of anxiety, rage, or even mania; not infrequently depression, tremor, insomnia, flushing, and a host of more vague symptoms which are generally designated as neurotic. Occasionally dysfunction of the gonads and pituitary glands is characterized by loss of sexual desire, impotence, or frigidity. On the other hand, somnolence, mental dulness, apathy, and mental defectiveness to the point of imbecility characterize diminished or absent secretion of the thyroid in cases of cretinism and myxedema. The frequent occurrence of neuroses in relation with puberty, the menstrual periods, pregnancy or the menopause no doubt is significant of the influence of the glands of internal secretion on psychic life.

But while it is clear that positive disturbance of endocrine function may give rise to definite mental symptoms, the question is whether less evident minor imbalance actually is

one of the etiologic factors in the production of various neurotic manifestations. Mild cases of hyperthyroidism, for instance, may be characterized by palpitation, "lump in the throat," emotional lability, vague pains and aches, sleeplessness, headache, instability, anxiety, fears, and a host of other symptoms which are commonly supposed to be hysteric. Similarly, easy fatigability, apathy, insomnia, depression, low blood pressure, diarrhea, loss of appetite and weight may be the result of lack of function of the adrenals, the condition not necessarily progressing to the grade of true Addison's disease. The experiments of Cannon and Crile are particularly significant in their bearing on the relationship of the internal glandular secretions to the genesis of the emotions. On the other hand, it is well known that purely psychic stimuli, such as fear, terror, and anxiety can give rise to a series of physical signs and symptoms which bear all the ear marks of endocrine disturbance. It is difficult, therefore, to state the precise relationship of cause and effect, even though the physiologic relationship is beyond question. To quote Cushing: "It is quite probable that the psychopathology of every-day life hinges largely upon the effect of the ductless gland discharges upon the nervous system. This is particularly worthy of consideration in the study of child psychology in its relation to puberty and adolescence, especially in those individuals in whom there is some underlying, possibly inherited, functional deviation of the chemistry of the internal secretions . . . If, therefore, we are to interpret hysteria and (or) the psychoneuroses as the resultant of early mental conflicts and compromises between libido and its repression, it will easily be seen that any secretory deviation which, on the one hand excites, or on the other diminishes, sexual activities must be an important element in modifying the terms affecting the ultimate compromise."

To sum up, there is considerable experimental and clinical evidence to show the influence of the secretions of the endo-

crines on body function in general and the nervous system in particular, and to warrant the assumption that there is an etiologic relationship between the functions of the ductless glands and the neuroses. But much of the knowledge thus far accumulated is entirely speculative, a great deal of so-called endocrinology consists of fiction and is not even reasonably fanciful, and the facts permitting positive deductions are few in number. It is to be feared, too, that most of the opinions with regard to the relationship of the endocrines to character and temperament are either the result of sheer naïveté, born of uncritical enthusiasm, or actually represent attempts to delude oneself and others. We must still wait for the information which only accurate experimentation can furnish before venturing positive statements in the realm of clinical neurology. For the present, it were better to speak of the disturbances of the glands of internal secretion in terms of physiology, to which they properly belong, and not interpret their activity in the psychologic terms of the neuroses.

The *vegetative nervous system*, either alone or through the mediation of the endocrines, has been invoked as a possible factor in the causation of neuroses. And there is indeed considerable evidence to show that disturbance in function of the general sympathetic nervous system is capable of coloring, if not actually giving rise to, mental manifestations. Attempt has even been made to speak of definite character make-up in the physiologic terms of excessive function of one or the other divisions of the visceral nervous system. Thus one speaks of the *vagotonic*, who, in addition to his possession of a number of physical characteristics, is supposed to be reserved, stolid or "cold-blooded," and of the *sympathicotonic* who is a lively, excitable, rosy colored person. The former, too, may be the subject of "nervous" indigestion, cardiac distress and other vague "neurotic" symptoms, while the latter occasionally manifests what appear to be unmotivated reddening of the face and neck, perspiration, fulness in the

head, noises in the ears, and anxiety. Gowers described *vaso-vagal attacks*, supposedly due to disturbance of the vegetative nervous system, which simulate very closely the typical paroxysms of anxiety hysteria. Those attacks consist of epigastric distress, violent palpitation, cold perspiration or flushing, feeling of suffocation, muscular tension, and intense vague anxiety of some impending calamity, or fear of death. The attacks may occur irregularly and last for minutes or hours. Finally, disturbances in the vegetative centers of the hypothalamic region of the brain have occasionally given rise to psychic symptoms, especially with reference to sexual life, (impotence or excessive desire in the male and loss of libido or nymphomania in the female) which may have some importance in relation to the neuroses. However, as with the endocrines, so with the vegetative nervous system, all that can be said for the present is that our knowledge hardly permits more than guarded speculation.

The opinion has been frequently expressed that all present-day attempts to explain physiologic mechanisms in psychologic terms, or *vice versa*, are confusing if not futile. Kretschmer's views, though interesting and suggestive, I believe confirm that opinion. He weaves into one pattern instinctive reactions, acquired reflexes, emotional stress, and psychologic situations. Hysteric behavior represents an "ontogenetically preformed type of reaction which arises from the primitive, psychic soil." It is a purposive flight into sickness, which utilizes biologically preformed mechanisms. Violent reactions represent relative biologic adaptations to disturbing external stimuli. In Kretschmer's opinion the hysteric reaction bears the same relation to the normal that the instinct does to the intellect; which rests upon the erroneous assumption of the existence of, or a cleavage between, two independent modes of reaction. He further assumes the existence of two wills, a higher one which is born of conscious motives and a lower—the hypoboulie—which springs from the reaction to instinctive

stimuli. In addition, hysteric habit formation represents a conditioned reflex. Danger, erotic shock, acute fright are capable of calling forth instinctive reactions and of establishing behavior patterns, which are subsequently reinforced by the will. A mixture of physiologic psychology, Pavlovian ideas, behaviorism, hereditary factors, instinctive reactions, social psychology, and Freudian psychopathology.

Suggestion.—One of the most widely-accepted views with regard to the neuroses is that they are caused by or are the result of suggestion. By this is meant the inculcation or ready acceptance, with conviction but without proof, of propositions which have no logical basis and are contrary to reason. *Heterosuggestion*, as the word implies, is the tendency to “assent to” or accept, a proposition made by others, and *autosuggestion* the propensity to influence oneself. Some people doubt the existence of the latter and affirm that all suggestion is really hetero, except that the individual may be momentarily or for a long time ignorant of the external source of influence. It is commonly stated that suggestibility is a universal phenomenon, though it is more pronounced in some individuals than in others and more intense on certain occasions than on others.

Although suggestion, according to all opinion, is an important mental mechanism its nature is not quite well understood. In consequence a number of theoretic views have been put forth to explain it. It is evidently related to hypnosis, indeed is regarded as a primary or light phase of hypnosis, and is defined by some as a dissociated state of consciousness. For Janet it is an automatism, a dissociation, a neuropathic state—a view which hardly does more than substitute one obscure concept for another. McDougall interprets suggestion by the assumption that there is an instinct of submission. It will be recalled that he postulates an instinct of dominance as opposed to that of submission and accepts besides Trotter’s opinion that there also exists a gregarious instinct. Suggestion, in this scheme, is the natural operation of the instinct

of submission with regard to that of individual or herd dominance. Like "rapport" it is a relationship between prestige and submission. In this also is implied a susceptibility to dissociation, which reinforces natural prestige. Ignorance of biologic function obviously enhances the tendency to suggestibility. According to Freud suggestion depends on the principle of identification and underlies the mechanism of sympathy. For him it is an emotional or libidinal relationship, bespeaking an attitude toward the father ideal of domination, and is exemplified in the reaction of individuals toward the leader of the group. Ferenczi looks upon suggestion as a fixation of libido onto the hypnotist—really a transference mechanism, though analysts do not quite admit it—and as a relationship derived from the infantile attitude toward father and mother. Jones amplifies the concept of suggestion as a libidinal process. According to him the ego ideal is suspended during the state of suggestion and ideas follow the pain-pleasure principle unchecked. If the primary narcissism is concentrated on the idea of self the result is autosuggestion; if the ego still operates in an indirect way the result is heterosuggestion.

Whatever the mental process underlying it, suggestion is conceived of as capable of spontaneously producing neuroses, and of intensifying and perpetuating those already existing. From the nature of the phenomenon and its relation to hypnotism suggestion can be, and indeed frequently is, made use of for purposes of cure, or at least the elimination of symptoms. Suggestion may even on occasion annul post-hypnotic amnesia. These and many other facts have led some observers to define psychoneurosis, more particularly hysteria, as a disease induced by suggestion and capable of being cured by it or other psychotherapeutic means. In other words, a person is hysteric because he is suggestible, and suggestible because he is hysteric—a definition assuming a reversible reaction which literally begs the whole question.

However all are agreed that suggestion is in essence a purely psychologic process and therefore implies psychogenesis in the etiology of the neuroses.

The Social or Social Biologic Theory aims to explain the genesis of neuroses in terms of the conflict which is commonly observed to be going on between the individual and the group. It deals with the relation of those instinctive reactions which are said to serve the needs of the individual as opposed to those which have arisen in the interest of the social group. It is well known that individuals of every species are endowed with innate tendencies to act or react under certain conditions in a specific manner without having previous experience. Those fixed behavior reactions, or primary instincts, represent phylogenetic memories, and are regarded in physiologic terms as inherited reflexes, as distinguished from the habit patterns developed after birth which are spoken of as acquired reflexes. Without enumerating and analyzing the various instinctive reactions it may be granted that many of them subserve the needs of nutrition, growth, maturation and preservation of the individual; that is, they underlie the struggle for individual existence. The sex instincts, on the other hand, among which must be reckoned everything which subserves procreation, ensure the survival of the group. But preservation of the individual alone has comparatively little biologic significance unless his existence also serves the propagation of the race. Indeed, biologically viewed, the preservation of the group or species is the ultimate goal and is the more important in the scheme of evolution. Many of the instincts, therefore, which ostensibly serve only the needs of the individual, actually further those of the group. The preservation of the species, order or race is so paramount that once the individual has performed the function of procreation the group loses more or less interest in him, on occasion even destroying him. Hence Trotter went so far as to postulate the existence of a race, herd, or gregarious instinct, and in

many ways sought to demonstrate its mode of operation in the human species. He believed that "the process going on in the satisfactorily developed gregarious animal is the moulding of the varied reactions of the individual into functions beneficial to him only indirectly through the welfare of the new unit—the herd."

But whether there be a race instinct or not, and I believe the line between the functions and ultimate purposes of the two groups of instincts is altogether too sharply drawn, the fact remains that a constant struggle may be observed to be going on in man between his inner urge to develop and preserve his individuality at all hazards and the equally insistent tendency on the part of the social group to use him for its own needs. While this struggle obviously takes place, and is most keen, at the instinctive level, its manifestations in complex social orders really become evident at much higher conscious levels. The intensity of one's individualism may be measured by one's propensity and ability to rebel against social forces, and the index of one's gregariousness may be gauged by the extent of one's ability to bend or mold the individuality to the needs of the social group. He who cannot openly revolt against those demands nor placidly accede to them begets an inner conflict which manifests itself in various departures from what is commonly regarded as normal behavior. Essentially the mechanism involved represents a flight from reality, an attempt to evade the demands of life. McDougall is of the opinion that the cause of every neurosis is interference with the instinct of flight and its accompanying emotion of fear, but he also believes that there is an additional factor which thwarts the conative aspect of that instinct. The conflict is between two conative systems: the instinctive desires and the ethical or moral purposive activities. In sociologic terms neurosis may be defined as the tribute which society is compelled to pay to the individual for levying on his ego to form a complex social order.

In times of great social stress, for example, wars, epidemics, economic or other upheavals, when the whole group is threatened, the demands made upon the individual to submerge himself, possibly even at the cost of his own life, not infrequently bring forth a crop of neuroses. This "flight into disease" may save the individual an overt struggle with the group, spare him the need of openly expressing fear or shame, and at the same time save him from the danger of destruction. The neurosis of the soldier in war represents this typical unconscious defense mechanism. It preserves his self-respect as well as his life. Sickness thus represents a great gain, and flight into disease a biologic mechanism. The hysterical wife may, in virtue of such a mechanism, procure tenderness, devotion, yielding to material demands and release from onerous marital burdens. She can through sickness acquire power over those to whom she was always compelled to submit and perhaps punish a recalcitrant husband. That the neurotic also punishes himself in the process of unconsciously gratifying many wishes merely shows that the weapon is two-edged. But the penalty evidently is less than the gain.

The lesser vicissitudes of daily life in the long run expose the individual, who cannot face reality or conform with the demands of the group, to even more powerful conflict than is involved in the intense but acute struggle during periods of great social stress. Education, or social life in general, may be defined as one series of don'ts from the cradle to the grave. Adaptation implies ability to conform to those injunctions; failure to adjust or desire to escape them means conflict and the possibility of neurosis. The need of breaking attachments between children and parents in order to grow up independently, the necessity for submitting to authority in the school, the exigencies of the social and economic order, the intense industrial struggle for existence, the demands for adjustment to love life under ethical or moral standards which interfere

with instinctive desires for gratification, the difficulties inherent in the married state which aims to harmonize but fails to satisfy conflicting personal and social needs, the emotional fermentation inherent in atavistic religious belief and ritual, all lead to conflict on a battlefield which lasts as long as life and which claims numerous casualties among those who cannot successfully engage in the combat. The reciprocal relation of children to parents and parents to children, particularly where there is either undue attachment or insufficient love, and their attitude to brother and sister and other members of the family may fertilize the neurotic soil to such an extent as to color the whole mode of adjustment to society and life in general. Children are not only the beneficiaries but they are also the victims of their parents. Altogether the neurotic reaction of the individual in the process of social adaptation represents a childish attitude, an inability to cope realistically with life in an adult manner. In its immediate effect the neurosis may be a gain for the individual; ultimately it becomes an asocial or antisocial reaction which leads to the elimination of the neurotic from active participation in the life of the social group.

In so far as it is possible to divest Adler's views of the neuroses of their tautological garb one may speak of them as general biologic. He, it will be recalled, starts with the assumption that most persons suffer either from an hereditary or acquired organ inferiority. As soon as the individual becomes aware of his defect all his attempts at adaptation to life represent efforts to overcome the inherent deficiency. If the effort is successful normal or abnormal ambition is the result; if it fail the consequence is flight from reality, with the formation of symptoms as an excuse for the failure. In any case the neurosis is rooted in organic biologic inferiority. Further, there is in every individual from birth onward a striving for power, for perfection, for infallibility. This "will to power," this desire to attain a heightened ego consciousness,

is the driving force of life, the reaction against the feeling of inferiority. The striving for superiority is also designated as the "masculine protest"—which is the guiding fiction of every neurosis. The feeling of inferiority is enhanced by the natural helplessness and submissiveness of the young child before its parents. The desire to overcome defects and attain perfection gives rise to an ideal which is not rooted in reality; wherefore there is engendered a hostility to reality which may find expression in art, piety, crime, or neurosis. The gist of Adler's views is that out of a biologic defect arises a biologic purpose, that the essential determinants of psychologic adaptation to life are hunger for power and the acquisition of superiority over others, and that every neurosis is a teleologic, social-biologic byproduct of that process—a wholly fanciful armchair formula without laboratory or clinical facts to give it the least verisimilitude or even justify it as a theory.

The Psychoanalytic Theory of the Neuroses is purely psychologic and aims to explain in terms of dynamic motivation the etiology of neuroses and their kaleidoscopic manifestations. Psychoanalysis starts with the assumption that peculiar hereditary factors and constitutional predisposition play a definite etiologic role, but that it is essentially their interaction with environmental and developmental situations, that is, accidental experiences, which are responsible for the production of the neuroses. The next assumption is that hereditary predisposition to neuroses refers to the innate sexual constitution with which every person is endowed. Every neurosis, therefore, traces its roots to the very earliest days of childhood and infancy and is conditioned by three factors: 1, hereditary predisposition; 2, situational reactions or acquired disposition; and 3, the conflict resulting from the interaction of both. The important question therefore is, how do those factors operate and what are the mental processes underlying them? A number of these have already been considered in the chapter on general Mental Mechanisms; here it becomes

necessary to consider the method of their operation in the production of neuroses and the motivating reasons for them.

It is common observation that the behavior of every neurotic presents features which are more or less characteristic of the child, more particularly what is known as the spoiled child. The neurotic is generally sensitive, very often extremely so. He is inordinately attached to his family, more particularly the mother, craves more than his share of attention and devotion, likes to exhibit his merits or even his failings and wants people to talk about him or his illness. He is generally introspective, likes to indulge in phantasy, and because of his subjective attitude to life seems to be unable to make objective contact with facts of reality. He is emotionally unstable, oscillates apparently without reason between elation and depression, is either afraid to be alone or is impetuous in his ways, and is shy or bold by turns. Very often he exhibits a feeling of inadequacy or inferiority and not infrequently betrays himself by his very attempts to compensate for it. Despite apparent docility and helplessness he does not easily brook interference, is sometimes querulous, always wants to have his own way, and is generally difficult to get along with. He is intensely preoccupied with himself and interested in everything that concerns his welfare, so that he usually gives the impression of being selfish. He often shows excessive enthusiasm, but never for very long, as his attention and power of concentration are comparatively limited. He is generally as incapable of sustained physical exertion as he is of mental effort. He is easily suggestible and as easily distractable. He is inordinately ceremonious, particularly about food, and is generally preoccupied with his bodily functions. He usually has decided likes and dislikes, based apparently on slight and superficial motivation. His dependence upon and undue attachment to his family interfere with his making close friendships or keeping friends he has made, and stand in his way of falling in love or being happy in

marriage. Sexually he is immature, essentially auto-erotic, and despite occasional ostentatious ardor not infrequently exhibits disgust for the sexual act. The male is often impotent, the female sexually anesthetic and frigid.

If the description just given is correct, and clinical experience generally bears it out, even though it does not apply equally to all neurotics, then two characteristics stand out: (1) Persistence of infantile trends and (2) abnormal psychosexual development. Psychoanalysis considers both of primary and fundamental etiologic importance. Before proceeding further it may be well to reemphasize that in the neurotic there is a definite erotic quality to the infantile trends, that they are entirely unconscious, and that they mirror an inner phantasy life which is in conflict with adult reality. Any attempt to gratify those primitive, infantile impulses on a conscious basis must result either in conflict or frustration. Both lead to inner turmoil, or state of anxiety, often merely from the threat of breaking into a world of conscious morality which refuses to recognize, much less tolerate, their existence. The neurosis, therefore, is the result of privation, in essence a denial of satisfaction to the libido.

It is quite evident that the sex impulses of the infant or child have not all the attributes of the adult instincts and that they cannot have early in life and up to puberty either the freedom or completeness of expression which is possible after maturity. In psychoanalytic terminology the infantile sex strivings are regarded as *partial impulses*, but they are conceived of as already surcharged with the primitive energy which is known as the libido. There is a difference only of intensity of the libido, as compared with the adult, but not of quality. However, the direction of those impulses varies with the age and depends on the phases of psychosexual development through which the child passes from infancy to puberty. Whether or not an individual will develop a neurosis will depend on the normal development of those phases, on the

ease of transition from one to the other, and on the partial or complete retardation at one or another stage of psychosexual development. That is, whether the child can give up in turn attachment to one phase before passing on to the next in order ultimately to reach the mature or adult way of adjustment to love life.

The very earliest infantile psychosexual activities are designated as *auto-erotic*, in the sense that the impulses are directed to the child itself. Objective outlet at this stage, obviously, is impossible and the infant derives pleasure from preoccupation with its own body. Thumb-sucking is commonly given as an example of this stage, and so are a number of other activities which have to do with excretion. These have become known respectively as the phases of oral and anal erotism. The period during which those activities constitute practically the entire psychosexual life lasts up to the age of two years and is known as the *auto-erotic* or *narcissistic phase*. The next phase, which generally lasts from the age of two to the age of four, is known as the period of *pregenital organization*. The libido is now directed away from the body in general toward the genital sphere, but there are no complete sexual impulses as yet; indeed, this is the stage of complete dominance of the partial impulses. Erotic phantasies are already in the process of development, but these are easily shifted onto the parents or brothers and sisters. Soon the little girl would marry her father or the little boy his mother, and when that begins to appear impossible of consummation the brother or sister may serve as the most desirable substitute. Knowledge of the actual rôle of the genitalia is still lacking, and the understanding of procreation or of birth altogether hazy. Because of the direction of love impulses to parents and siblings the phantasies are regarded as "incestuous" and "homosexual." Sleeping in bed with parents or witnessing them during coitus may awaken phantasies or intensify already budding ones, and in some instances act as traumata which serve to fix the

infantile trends in the memory of the individual to such an extent as to form the basis of a neurosis later in life. It is also during this period that identification of the child with the parent of the same sex occurs; and it is out of the hostile desire to replace him or her in the affection of the parent of the opposite sex that the Oedipus situation is born. The passing of this complex and its merging with the castration complex is another manifestation of the second stage. The third period, the one between the age of four and the age of six, represents the time of *completion of the genital organization*, when the libido takes the genital zone for its object and when psychosexual life in a measure approaches the adult form. The years between the ages of six and fourteen (puberty) are said to constitute a *latent period*, the adult organization having been practically completed during the first three periods. It should be added that the various periods may be shorter or longer in different individuals, depending on the innate psychosexual constitution and on developmental vicissitudes which may serve to retard or accelerate their progress and transitions.

These phases are considered of great importance in the psychoanalytic theory because of their bearing not alone on the production of neuroses and even psychoses, but on the types of character, on the variety of the neuroses and on their protean mental and physical manifestations. As the memories of those phases are buried in the unconscious, generally surcharged with affective energy in the form of complexes, they not only influence so-called normal behavior but serve as points of fixation to which on occasion every individual may regress. These are the weak loci, the habitats of the partial impulses charged with libido, to which regression in phantasy naturally occurs when external difficulties make it impossible for some individuals to adjust on an adult basis. The libido instead of finding objective gratification becomes introverted in the process of regression. The fact that most individuals escape neurosis in the process of adjustment to the numerous external

difficulties of life while the rest find in regression an escape from conflict, merely signifies that the latter have come "sensitized" early in life. Indeed such persons often prove on analysis to have been unduly stimulated (excessive fondling and kissing) or accidentally traumatized sexually (actual or fancied assault) during infancy or childhood.

It has been said that the partial impulses represent the immature sex manifestations of the child and are the earmarks of the neuroses in which regression has taken place. Among them may be mentioned active and passive exhibitionism, some forms of sadism and masochism, and various phases of homosexuality. The last, obviously, is derived from the identification with the parent of the same sex. Out of the ardent inclination to love and the desire to be loved by the father or mother sometimes may grow the aversion on the part of female neurotics for men and of the male for women. The only son who cannot fall in love at all, or makes a lukewarm husband if he marries by chance, and the frigid young woman who cannot thaw out to any man belong in this category. The various partial sex impulses, as they appear in childhood and later in adult phantasy, can take on many forms, and they are therefore known as *polymorphous*. From the point of view of the adult they are also regarded as *perverse*. Naturally any attempt at objective expression or gratification of these polymorphous and perverse impulses constitutes a grave threat to civilization and morality. It is for this reason that they have been so deeply repressed. But their very repression may become a source of unconscious conflict and lead to the formation of neurotic symptoms in those in whom the primitive impulses seek at all hazards an outlet which they cannot very well obtain.

Generally all the erotic impulses are by degrees abandoned as the child grows up, and by the end of the sixth year they have become totally repressed. During the latent period there is, as a rule, no occasion for conflict, and the neuroses

are comparatively rare. At this time boys generally show indifference if not contempt for girls and girls do not care much for the company of boys. It is only in the special instances of precocious development or undue sensitization that problems arise during the latent period. But with the advent of puberty the sex impulses again appear, this time in their adult form and with more insistent demands. A new need for adjustment to reality arises, a new orientation to object love becomes imperative. Later in life other and similar occasions may arise from time to time to stress the need for readjustment, but the critical period is during adolescence or whenever the individual is for the first time confronted with the stern demands of reality. Some degree of inner fermentation accompanies this period of readjustment, and a certain amount of outward conflict occurs in practically every individual during the transition stage. But with a certain number of every generation the process seems to be unusually difficult. They seem to be unable to overcome the obstacles which either they themselves or others have reared up. Some ultimately hurdle their difficulties, others never do. In any case the conflict which arises brings into operation the unconscious tendency to withdraw into phantasy, that is, to regress to the earlier patterns of childish sex activities. The impulses which cannot somehow be projected outward, which threaten to cause conflict and pain if admitted into the conscious sphere, find, in the process of regression, a vicarious unconscious gratification. Obviously this represents a flight from reality and a defense mechanism, both of which enter into the formation of the neuroses.

Granted the psychosexual and unconscious dynamics of the neuroses, one may observe some or all of the following steps in the production of practically every neurosis: 1. Failure of adjustment to difficult situations in adolescent or adult love life brings about an *external conflict*. This, in the constitutionally predisposed individual, constitutes the precipitat-

ing trauma. 2. Inability to settle the conflict in terms of reality necessitates withdrawal into phantasy, which implies *regression* to various levels of infantile fixation. The degree of regression varies in different individuals and is determined by the intensity of the outer conflict, the capacity for inner adjustment and the nature of the psychosexual constitution. 3. *Repression*, or the exclusion from consciousness of the unconscious infantile wishes, because of social morality, feeling of shame or disgust, or of any conscious reason which is responsible for the frustration. 4. Repression in turn leads to *inner conflict*. This conflict may be resolved in one of a number of ways. There may be successful repression or sublimation and the elimination of all conflict. The conflict may be resolved by means of inner dissociation and the formation of symptoms. The inner conflict may lead to further repression and the shifting of the ungratified wishes to ever lower levels. This in turn keeps up that inner fermentation which leads to anomalies of conduct whose motive is obscure. Parenthetically it may be pointed out that in the neuroses the libido may regress to the lowest level of what is known as object fixation, namely to the second phase of sexual development. Where the regression proceeds to the narcissistic stage and the libido, so to speak, becomes attached to the ego the result is a psychosis. To the extent that repression is unsuccessful the repressed libido seeks circuitous expression in the form of symptoms whose symbolic significance is gratification of tabooed wishes. Obviously because of the unconscious nature both of the wishes and the inner conflict the significance entirely escapes the individual.

The neurosis, then, is conceived of as the result of failure of repression of both instincts and sentiments in the conflict between the conscious ego and the unconscious id. Attention has been called in the chapter on Mental Mechanisms to the relationship which exists between the unconscious, the ego,

and ego ideal and to the sense of guilt which results from the discrepancy of the performance of the ego and the demands of the ego ideal. In the causation of neuroses and the formation of symptoms the ego ideal, censorship, or conscience, is primarily responsible. The neurotic becomes sick because the ego ideal frustrates gratification of wishes. The neurotic sign or symptom thus becomes a disguised fulfillment of, or a substitute for, sex gratification, and is in reality a defense against the demands of the libido. That is, it is a compromise between the opposing tendencies or claims of the ego and the unconscious libido. But in so far as it incapacitates the individual it is also a punishment for the fulfillment of tabooed desires. Now, as long as the instinctive energy can find outlet and attach itself objectively either externally or to internal patterns some sort of compromise adjustment results. But where the libido becomes detached and remains, so to speak, free-floating, it causes apparently unmotivated anxiety. A highly speculative view attributes the origin of anxiety to the shock sustained by the infant at the moment of birth when it is thrust out of nirvana into a cold and harsh world in which the lungs must begin to breathe, the stomach to digest and the whole body and mind to function on the level of reality. Another view is that anxiety is the manifestation of a threat to the ego instincts of self-preservation, for instance, at the time of weaning; that it is a conversion of the free-floating libido. McDougall is of the opinion that all fear and anxiety are derived from the instinct of flight and the need for self-preservation. Whatever the explanation it is a fact that anxiety is the most common and least consciously motivated symptom of the neuroses.

The etiology of the various types of signs or symptoms is thus explained in terms of regression of the libido. It has been said that normally the libido attaches itself proportionately to the ego and sexual impulses, and that the excess can either be shunted from sexual to asexual and socially useful

aims; that is, it can be sublimated, or it can, by the method of regression, seek previously abandoned sexual patterns. In the case of the hysterical symptom the regression extends only to the stage of "incestuous" fixation, while in compulsion neurosis there is further regression to an earlier narcissistic (anal erotic) stage. So, too, while the hysterical symptom is a compromise between desire and gratification, the compulsive act is more of a defense reaction and ultimately becomes a denial or rejection rather than a fulfillment of an unconscious wish. The compulsive ritual is a reaction formation opposed to the unconscious wish, and is really derived from the repressing force in order to protect the individual against himself (the immoral or perverse desires) and absolves him from the guilt with which he is unconsciously burdened. This view will be further elaborated in the chapter on the Classification of the Neuroses and the discussion of Clinical Manifestations.

Much emphasis is laid by Janet and others who adhere to his point of view on the process of dissociation as the etiologic moment in all the neuroses. It is worth pointing out, therefore, that in psychoanalytic theory the mechanism of repression too involves the process of dissociation. On the surface there is apparently no difference between the two concepts. But there is a very fundamental distinction between them in that in the first instance no dynamic motivating factor is conceived of, while in the second an unconscious force is held responsible for the splitting of the affective mental currents. In the former the dissociation is supposed to occur spontaneously and more or less suddenly, as for example in hypnosis, hysterical fugues, or somnambulism, and to take place in the conscious stream of thought; in the latter repression is regarded as the cause of the dissociation and is conceived of as taking place within the unconscious. Conflict is assumed to underlie both processes, but in the case of the static or descriptive psychology the struggle is said to occur on the surface, whereas

in the dynamic psychology the inner conflict takes place in the deeper layer of the psyche, that is, in the unconscious.

The mechanisms of regressions in the face of external conflict and of repression into the unconscious as a result of it have been invoked in explanation of the way the primitive impulses are dealt with when they seek tabooed outlet. These involved the possibility of sublimation or consequent inner conflict and symptom formation as the next steps in the neurosis. But there are instances where regression to earlier phases of sex-development occurs, but there is neither repression nor internal conflict. For various reasons the regression proceeds to some of the phases of infantile fixations, and in the absence of conflict the individual may give expression to his primitive impulses. The partial impulses, which from the standpoint of adult morality are considered as perverse, can find outlet in those individuals because they have no strong ego ideal, no inner censor to stand sentinel over them. The result of regression without repression, therefore, is frank *perversion*. And it is a clinical fact that in individuals who have perversion there is practically no inner conflict. Whatever conflict they do have is almost entirely on the surface, more particularly with the laws of social morality. The pervert revolts against the laws which are not of his making and has no moral compunction in gratifying his infantile impulses. The neurotic with his strong ego ideal tries to conform but cannot; hence the conflict and the need for vicarious gratification in the form of symptoms.

The following quotation briefly summarizes practically the whole psychoanalytic theory of the neuroses: "1. The neurosis is essentially a repetition of infantile situations. 2. The seat of the pathologic process is in the sexual sphere. 3. The disease is precipitated by an external factor in adult life, inducing withdrawal from reality into the world of phantasy. 4. The unconscious phantasy is an expression of a regression to an early (phase of) psychosexual development. 5. This

particular point of development, termed fixation of the libido, is the resultant of two factors—infantile ‘traumatic’ experiences and heredity, which constitute the predisposition. 6. Regression and that phase of the personality termed the ego (or ego ideal which leads to repression) determine the genesis of the neurosis.” (A. Polon.)

We have thus far considered the salient features of the various theories of the neuroses and briefly outlined the different conceptions of their etiology. Among them were discussed the so-called somatic, or pathologic theory, the physiologic and behavioristic theories, the theory of endocrine imbalance and of disturbances in the vegetative nervous system, the concepts of suggestion and dissociation and, finally, the social-biologic and the psychoanalytic theories. These may be roughly divided into the organic and the psychologic. In the first is assumed the theoretic existence of actual but at present not demonstrable alterations in the central nervous system. To some extent this holds true of the theory based on disturbances in the vegetative nervous system. While the physiologic, behavioristic, and endocrine theories may also be put in the organic group, emphasis is here laid on disturbance of function rather than on change in structure. On the other hand, the concepts of suggestion and mental dissociation, the psychoanalytic, and, to a great extent, the social-biologic theories, are purely psychologic. What may be termed the mixed approach consists of the attempt to interweave psychologic mechanism, physiologic functions, instinctive reactions, biologic tendencies, and pathologic alterations. Such a view is not unimportant, indeed is highly suggestive, but at present is somewhat confusing. With the possible exception of behaviorism all theories assume some sort of hereditary or constitutional predisposition; but even here there is a difference of emphasis if not point of view. Psychoanalysis presupposes a peculiar psychosexual predisposition, while the others stress an organic defect of some kind, a neuro-

pathic or psychopathic constitution (whatever that may mean), a poor *anlage*, or some other hereditary burden. Both the social-biologic and the psychoanalytic theories lay great stress on conflict with reality, the former on the basis of general instinctive reactions which determine in the main the whole struggle for existence, the latter on the need for psychosexual adjustments. Psychoanalysis alone assumes a dynamic unconscious as the battlefield and infantile trends as the source of the conflicts.

CHAPTER IV

CLASSIFICATION OF THE NEUROSES

The classification of the neuroses has been foreshadowed in part in the chapters on Mental Mechanisms and Etiology. In the theoretic discussion of the normal and abnormal workings of the mind the attempt was made to lay a psychopathologic foundation for the division of various groups of mental and physical manifestations into consistent clinical entities. But the speculative nature of some of the concepts advanced and the lack of definite knowledge of ultimate causes make scientific classification very difficult if not impossible. To add to the confusion numerous writers persist in creating more or less artificial entities out of hybrid unions of historical terms, psychologic theories, physiologic concepts, neurologic facts, and clinical manifestations. Depending upon his point of view each writer tries to fit into one or another group, symptom-complexes which might just as well be classed under any of them without doing more violence to logic than is already done by the classification itself. As a matter of fact one often finds the same manifestations capriciously grouped now under one heading, now under another, simply because the various terms have different connotations in the minds of different writers. To add further to the confusions some clinicians and psychologists, who are opposed to psychoanalysis, have little understanding of the subject, or accept very few of its concepts, adopt many of Freud's terms, indiscriminately link them to the older nomenclature, and classify the neuroses in ways which are never precise and rarely consistent.

At one time hysteria included practically all the manifestations which are now assigned to the neuroses and not a few

which we know more properly belong to the psychoses. With the adoption of the term neurasthenia a number of symptoms were just lopped off and grouped under the new heading. In time neurasthenia became the great catch-all for whatever symptoms one felt inclined to group under its all-inclusive wings. In effect neither hysteria nor neurasthenia was a definite nosologic entity. Some writers thought they illuminated etiology or enriched classification by introducing Latin and Greek terms without regard to psychologic or other motivation and created numerous diseases out of isolated symptoms. Obviously the term phobia is not a diagnosis and conveys as little about the symptoms as the more intelligible words fear, dread, or anxiety. Nor could one infer from the literal translation of the word neurasthenia that the term is used to cover a multitude of phenomena which have no relation to its meaning. The quarrel here is not merely with the use of terms for concepts which no longer suit the entities for which they were originally coined, but with the naive assumption that words can do more than label facts and that etymology can take the place of etiology, pathology, or clinical medicine.

Janet introduced the useful term *psychasthenia* for the various manifestations of the obsessional neuroses. In doing so he very properly brought together under one heading symptoms which have certain elements in common, but he advanced rather tenuous psychologic reasons and was not altogether consistent in his clinical classification. Under psychasthenia he included almost all the symptoms which did not fit in with his conception of hysteria; namely, phobias, obsessions, compulsions, morbid anxieties, *folie de doute*, and a host of other mental symptoms. In both hysteria and psychasthenia Janet assumed a failure of integration of the currents of consciousness, that is, mental dissociation; but in the former he considered the dissociation to be "molar," in the latter "molecular." In hysteria large masses of conscious-

ness are supposed to be split off and to give rise to fugues, alternating personalities, paralyses, anesthetics, and a great many other major symptoms; in psychasthenia the minute splitting is supposed to lead to the more refined mental manifestations enumerated above. As a further differentiation Janet postulated a general lowering of psychic tension in psychasthenia and a special or localized lowering, a stratification at psychic levels, in hysteria. Without venturing at this point any further criticism it may be emphasized once more that the psychologic distinction is not only vague but leaves out of account all motivation, and that the clinical classification hardly conforms to the theoretic explanation which is invoked.

Provided one maintains a consistent point of view and does not confuse psychologic with physiologic or other organic terminology, or make use of incompatible psychopathologic concepts, it matters comparatively little what classification one follows. Here I shall adopt the Freudian classification, first, because of its consistency in viewing the neuroses from a psychogenic standpoint and, second, because it has the merit of a dynamic approach which actually attempts to speak in terms of causes. But the weakness of every classification lies in the fact that it conveys the notion of definite, circumscribed clinical entities. This is not only erroneous from the standpoint of psycho- or other pathogenesis but is actually contrary to clinical experience. Aside from the difficulty of defining precisely the normal state, the psychologic gradations all the way from what is commonly regarded as normal through the neuroses to the psychoses are altogether too fine to permit of rigid classifications. In the present state of knowledge, therefore, all classification must be regarded as tentative and sharp definitions must be avoided. Clinical observation, further, teaches that pure neuroses of one kind or another are comparatively rare and that mixed neuroses are fairly common. One does not frequently see pure anxiety

neuroses, pure hysterias, either of the conversion or anxiety type, pure phobias, pure compulsions, and so forth, but conditions in which the signs and symptoms of several "syndromes" coexist. It is true that in many instances the predominance of a set of symptoms belonging to a given nosologic group permits a general classification, but even in those cases there is sufficient character coloration to distinguish one neurotic from another. In addition, anxiety, either as a primary phenomenon or secondary elaboration, colors most of the neuroses, and is perhaps the most common single symptom encountered. Finally, while conflict is the source of all neuroses, its extent and intensity vary in different individuals, and the type of the neurosis will depend on the individual's ability to resolve it in regression, repression, or sublimation, and on his innate capacity of adjustment. It must be remembered, too, that regression is not the chief mechanism in many neuroses, that repression is not always the way out of conflict, and that sublimation is a capacity which not everybody possesses.

The gradual transition, in the psychological sense, from the neuroses to the psychoses frequently reflects itself in clinical manifestations which may appear in either entity and thus render classification occasionally difficult and sometimes impossible. By way of illustration one may instance the occurrence of hypochondrical symptoms in both the neuroses and the psychoses, though they are apt to be comparatively transient in the one and persistent in the other. So, too, it is sometimes difficult to say where a severe compulsion neurosis ends and a schizophrenia begins. By analogy this holds true of many borderline cases. Although there is considerable difference between the neuroses and psychoses in the capacity for social adjustment and particularly in the presence or absence of personal insight into the mental states, the line of demarcation is occasionally very thin. In general, it may be stated that the neurosis represents a compromise between

the individual and his social environment, whereas the psychosis an utter breach or flight. Thus total inability to adjust to reality, utter absence of insight and practically complete barring of the unconscious operations of the mind without inner conflict or repression are characteristic of the psychotic. However, despite the difficulties enumerated, proper classification is not only desirable but extremely important. Its worth lies in the fact that it affords valuable insight into underlying mental mechanisms and furnishes intelligent approach to treatment. It is important, therefore, to know more of the reasons for the various classifications, the dynamics of the different nosologic entities, and the psychologic criteria on which they are based.

Freud divides the neuroses into *Actual Neuroses* and *Psychoneuroses*. The actual, also called true, neuroses are supposed to be characterized by temporary or permanent, but definite, physical and physiological disturbances within the organism, which are generally the result of more or less immediate, specific precipitating mental and physical traumatic factors. In this group are generally included: 1, *Anxiety neurosis*; 2, *neurasthenia*; 3, *hypochondria*. Traumatic neurosis may possibly be added, but this is a disputed entity and involves other psychologic and physiologic mechanisms besides. By psychoneuroses are understood those neuroses which are wholly psychogenic in origin and where practically all the mechanisms of repression, the various stages of regression, the types of inner conflict, transference, the attempt at restitution and adjustment, in short, where the numerous dynamics of symptom formation are exhibited. Because of the definite rôle which regression to the various points of infantile fixation plays in the development of these neuroses they are also known as *Regression* or *Fixation Neuroses*. Under the psychoneuroses are classed the *Transference Neuroses* and the *Narcissistic Neuroses*. The former name is derived from the significant mental process which permits the

shifting of the affective energy from object to object and also implies the process of identification in phantasy of the self with others on the basis infantile patterns. Under the transference neuroses are included *hysteria* and *compulsion neurosis*, the former being further subdivided into *anxiety hysteria* and *conversion hysteria*.

The narcissistic neuroses really belong to the psychoses. Although there is considerable evidence that some, at least, are organic in nature, they fall, according to psychoanalytic theory, within the group of psychoneuroses. These are conceived to be the ego neuroses wherein there is regression to the earliest infantile points of fixation, when autoerotism was supreme and when the partial, particularly the sadistic, impulses were dominant. Wherefore the mechanism of delusional projection is a frequent consequence of the narcissistic regression. Herein are grouped: 1, *Paraphrenia*; 2, *Schizophrenia (dementia precox)*; 3, *manic-depressive psychosis*; and 4, *paranoia*. To the regression neuroses may be added *perversion*, *neurotic character*, and possibly constitutional inferiority. The perversions are characterized by the absence of repression or conflict, while neurotic character best illustrates psychosexual or other inherited predisposition. In the last group belong the neurotic types which are variously designated as *introverts* and *extroverts*, *schizoid*, *syntonic*, or *cycloid*. None of these represents a pure psychoanalytic concept, and they are more descriptive than dynamic, but they are useful nevertheless. The *organic psychoses* do not properly belong here, but for the sake of completeness and because of the psychologic similarity of some of the mental mechanisms and the consequent diagnostic difficulties occasionally encountered, the following may be mentioned: 1, *Involutional Melancholia*; 2, *Toxic psychoses*; 3, *Infectious psychoses*; 4, *Senile psychoses*; 5, *Other somatic degenerative psychoses*. There are a great many subdivisions of these, for a knowledge of which reference should be made to works on

psychiatry. Finally, there are the *borderline cases* whose symptomatology partakes of the characteristics of both the neuroses and the psychoses, and the *mixed neuroses*, which probably form the largest clinical group.

THE NEUROSES

A. Actual Neuroses

- I. Anxiety Neurosis
- II. Neurasthenia
- III. Hypochondria
- IV. (Traumatic Neurosis?)

B. Psychoneuroses: Regression or Fixation Neuroses

- I. Transference Neuroses
 - a. Hysteria
 1. Conversion hysteria
 2. Anxiety hysteria
 - b. Compulsion Neurosis (Obsession)
- II. Narcissistic Neuroses (Psychoses)
 - a. Paraphrenia
 - b. Schizophrenia
 - c. Manic-depressive
 - d. Paranoia
- III. Other Regression Neuroses
 - a. Perversions
 - b. Neurotic character
 1. Introvert, schizoid
 2. Extrovert, cycloid

C. Mixed Neuroses

D. Borderline Cases

The actual or true neuroses may be regarded as illustrations of mixtures of psychogenesis and organic pathogenesis. As has been pointed out, they represent clinical entities in which regression plays a comparatively small part and the precipitating "trauma" the leading rôle. The conception is that an

otherwise well-adjusted individual sustains an "accidental" injurious experience, by which the whole organism is, as it were, overwhelmed and more or less disorganized. The acute (or chronic) trauma is held to be the immediate cause of the neurosis, and the assumption is that various organic bodily changes and consequent interference with physiologic function have actually taken place. The pathologic changes are supposed to consist of congestion of various organs, increased tension, stasis, or other molecular disturbances. The somatic excitation and disturbance of visceral function of which the individual is unaware in turn gives rise to apparently unmotivated anxiety, in response to a very real internal threat to the individual.

Anxiety neurosis, which should be etiologically, if not clinically and psychologically, distinguished from anxiety hysteria, is, in its pure form, a syndrome which is conceived to be directly dependent upon frustrated or, rather, dammed up sexual libido. It is characterized essentially by apparently unmotivated anxiety, although there is also general irritability and hyperesthesia of the various sense organs. Clinically it expresses itself in brief or prolonged periods of vague but intense fear, feeling of impending death, dread of serious disease or insanity, or other impending calamity. The spells of sudden panic and anguish may be devoid of any ideational content and may come on without any apparent reason or be precipitated by most trivial occurrences. With the fears are generally associated marked palpitation, sensation of giddiness or true vertigo, shortness of breath, trembling, sweating or other vasomotor disturbances, feeling of faintness, dysesthesias, nausea, diarrhea, and numerous other physiologic disturbances. Some or all of these symptoms may appear quite suddenly at night, without apparent reason; and it is possible that pavor nocturnus of the adult belongs to this group, although it is more likely a hysterical phenomenon. Occasionally the fears are elaborated into actual phobias,

such as fear of animals, places, and other natural phenomena, but in those cases they pass over into true hysterical manifestations. Not infrequently the anxiety states become recurrent and chronic and are not easily traceable to the precipitating trauma.

The anxiety occurring in anxiety neurosis, which arises in response to an unrecognized, because unconscious, threat from within, differs from *normal anxiety* which is a biologic defense mechanism of preparedness against impending danger from without. In the latter case the anticipatory anxiety serves a definite purpose, and prepares the individual for flight or fight; in the former case the individual cannot escape the anxiety because he can neither flee nor fight the inner danger. It is perfectly normal for a parent to be anxious when a child has pneumonia because patients often do succumb to the disease, but if similar anxiety is expressed whenever a child sneezes the conclusion is forced that the fear is not based on the insignificant outer threat and really arises from within. Such an anxiety, however, may better illustrate an unconscious hysterical mechanism. Anxiety, too, must be differentiated from normal *fear*, which is a properly motivated reaction to a known external threat or danger, such as a wild beast, sudden assault or what not, and from *fright* which is a sudden, intense fear of being overwhelmed by outer danger, without normal preparatory anxiety. The point is that the apparently unmotivated, undifferentiated anxiety arises in response to the threat of danger which tabooed cravings presented to the ego.

Freud observed anxiety neuroses in adolescent virgins; in cases of prolonged courtships with excessive erotic stimulation and no gratification; in young married women who are frigid or sexually anesthetic and some who dread pregnancy and therefore have all gratification frustrated in advance; in women whose husbands are impotent, have premature ejaculation or practise coitus interruptus; in women at the

climacterium whose temporarily increasing sexual desire cannot for some reason be satisfied; and in widows who abstain perforce, but who cannot endure abstinence. In men anxiety neurosis is occasionally observed in those who practise coitus interruptus or abstain totally, in young men who frustrate their sexual appetite by frequent and prolonged excitation with women without having normal intercourse, and in elderly persons whose sexual desire outruns their potency. Anxiety may arise in both male and females, generally young ones, who suddenly give up masturbation because of moral compunction or fear of hurting themselves physically. I have seen such instances following cessation of masturbation after a confessional, on being deterred from the practice by reading pseudoscientific literature, receiving foolish advice from a physician or teacher, or being frightened by a too solicitous but utterly nonunderstanding or misguided parent. In all the instances alluded to, both male and female, where the abstinence is enforced but cannot be endured, the anxiety and its accompanying signs and symptoms frequently vanish if sexual errors are corrected and if the love life can find normal outlet or undergo proper sublimation. Finally, it should be added that anxiety neurosis does not always remain pure and that many patients elaborate the anxiety into definite phobias and beget other hysterical symptoms besides. The secondary manifestations are in the nature of reparative processes or defense mechanisms wherein the free-floating libido is conceived of as being anchored or projected onto definite persons, things or situations. In those cases the hysterical mechanisms obviously are of different and deeper nature from the precipitating trauma or sexual error which resulted in frustration. Here the questions of repression and internal conflict come into play.

Neurasthenia, which is to this day a vague and elastic symptom-complex including a variety of manifestations, has been restricted by Freud to a definite syndrome whose specific

etiology is prolonged or excessive masturbation. [The condition, which is essentially chronic, is characterized by general lack of energy, easy mental and physical fatigability, mild gastrointestinal disturbances, feeling of pressure on top or back of the head and neck, pressure on the spine, sensation of a tight band about the head, ejaculatio precox or impotence, low blood pressure, etc. Essentially it is conceived of as a state of reduced vigor without initiative or capacity for exertion, the result of injury to the psychosexual apparatus by masturbation. Normally the continuous inner sex excitation acts as the impulse to psychic life and creative effort. I believe it is generally true that given a person with a vigorous, intelligent, creative mind one may infer a powerful sex impulse. Of course a person may be sexually vigorous and mentally poor, but it is also true that, in men at least, poor sexual endowment rarely goes with intellectual vigor. Ordinarily the sexual energy derived from the somatic tension, which is not utilized for psychic life and is not sublimated, must find specific outlet in physical love. This requires adequate psychic preparation before the complicated spinal reflex act can find the proper outlet. In masturbation the whole process is short-circuited, as it were, and the energy, instead of finding proper objective outlet as is the case in normal love life, is dammed back into the body itself. There is thus injury not only to the psychosexual apparatus but to the genital organs themselves. And it is indeed true that many chronic masturbators have congested prostates, boggy seminal vesicles, and injected verumontana. It should be emphasized once more that psychoanalysis does not consider occasional masturbation injurious but only its excessive practice.

That there is considerable truth to the theory can hardly be doubted, but whether every case of neurasthenia can be traced to excessive masturbation is open to question. Aside from the fact that an analogous syndrome is said to be found in women in whom masturbation is a much less complex

process, there are undoubted instances of neurasthenia in which no history of inveterate masturbation is elicited and others in which the practice has long ago been given up. In many cases ejaculatio precox or even impotence sets in very early in life and the neurasthenia develops because normal sexual life never really was possible. It is more than probable, therefore, that heredity plays a very great, possibly even a preponderating, rôle in neurasthenia. There is also considerable evidence for the assertion that the neurasthenic is a narcissistic individual with a schizoid background. In any case, however, there is a damaged psychosexual apparatus. It is important, also, to exclude the presence of actual organic disease which may be characterized by so-called neurasthenic symptoms. Allusion has already been made to the fact that hypoadrenemia may simulate neurasthenia and so may the early phases of cerebral arteriosclerosis, general paresis, tumor of the brain, pulmonary tuberculosis. However, the history does not trace back years and years in those cases and injury to the psychosexual apparatus by masturbation is not the prime cause.

But neurasthenia remains pure only as long as it does not engender conflict in the individual. When it does, and it happens frequently because of frustration in love and unhappiness in marriage, the result is another neurosis. Anxiety very often accompanies neurasthenia and hysterical, or even compulsive neurotic phenomena not infrequently complicate the picture. These are obviously secondary manifestations elaborated as the result of the conflict. Hypochondriacal symptoms are not at all rare, and even depression may be an occasional by-product. In short, many fundamental neurasthenics present the clinical picture of mixed neuroses.

Hypochondria is also designated as a true neurosis. It is characterized by somatic complaints and represents an intense preoccupation with bodily organs. It is a pathologic intensification of the normal tendency temporarily to fasten

one's attention on diseased organs. The symptoms refer to various parts of the body in which no pathologic process can be demonstrated, and yet there may be vasomotor or other disturbances to account for the manifestations. Generally when a normal person becomes sick he withdraws his interest from the outer world and directs it to himself and the part of the body affected, a shift in interests which obviously serves the purposes of recovery. But when his interest outlasts the disease, is more intense than the slight ailment demands, or occurs when no demonstrable pathologic conditions exist, it becomes abnormal. In psychoanalytic terms, the hypochondriac, instead of projecting his libido outward and attaching it to external objects and situations, withdraws it within himself and invests various parts of the body with it. In other words he reverts to auto-erotism and thus becomes narcissistic. Therefore, unlike the normal person who upon recovery resumes interest in the world about him, the hypochondriac devotes all his affective energy to his body and constantly reckons with his subjective complaints. Anxiety is very frequently associated with the hypochondriacal symptoms, and, as it increases, a certain amount of psychic elaboration generally takes place. But instead of passing over into a hysterical or compulsion neurosis the mechanism becomes more nearly that of a psychosis. Indeed hypochondria may merge into paraphrenia and be the forerunner of a schizophrenia or other narcissistic psychosis. Conversely, it is a well known fact that definite psychoses are frequently characterized by hypochondriac symptoms. The hypochondriac has little or no insight into his complaints, and however mild the symptoms they are generally so "fixed" somatically, or narcissistically, that they are not amenable to psychotherapy.

Traumatic neurosis is a more or less disputed entity. It is a question whether it may be grouped among the true or actual neuroses, and it must not be confused with hysteria ostensibly

following an injury, wherein the individual unconsciously makes use of the accident to solve personal difficulties which have no relation to the trauma. Although traumatic neurosis generally follows mild or even trifling injuries to the head it is nevertheless assumed that organic changes which are not demonstrable have taken place. The symptoms (*q.v.*) which frequently follow after a period of "incubation" or elaboration essentially consist of headache and dizziness, accompanied by irritability, apathy, lack of power of concentration, poverty of memory, a host of subjective sensory disturbances, and anxiety. As in other true neuroses it is difficult, despite or because of, the subjective nature of the complaints, to define exactly the nature or extent of the organic changes; but, here, too, it is assumed that they are accompanied by abnormal psychosexual function. In general it would seem that in so far as traumatic neurosis is not the direct result of organic changes, such as may be the actual consequences of concussion of the brain, it represents rather an ego than a true neurosis. That is, the ego instincts, which have to do with self-preservation, rather than the psychosexual, are involved in traumatic neurosis, as they evidently are in many of the so-called war neuroses. However, if the conception of intrapsychic conflict with regard to the instinct of self-preservation is true of the traumatic neuroses, and there also is some degree of narcissistic regression, then they do not really belong among the actual neuroses. The theoretic explanation adduced is that in the ego neuroses a desexualized narcissistic libido is the cause of the conflict.

The psychoneuroses, it has been repeatedly pointed out, are the result of conflict and regression to various points of infantile fixation. The character of every psychoneurosis, therefore, reflects the depth to which regression has taken place. But as the neurosis actually represents an attempt at adjustment one may see in it also evidences of repair or phenomena of *restitution*. The clinical manifestations which give evidence

of return to reality are colored, therefore, by the restitutional efforts and represent some sort of *compromise formation* between regression and adjustment. So that in every neurosis one may observe a substratum of normal behavior, symptoms bespeaking various depths of regression, the results of compromises, and the phenomena of restitution.

Allusion has already been made to the fact that phantasies in the unconscious are very often intimately associated with persons who played affective rôles in the course of development from infancy to childhood, and that some of the psychoneuroses are characterized by the ability to shift those unconscious phantasies onto persons in real life. This mechanism, known as transference, which is so characteristic of some of the psychoneuroses, has earned for them the name of transference neuroses. The same quality, which also underlies the mechanism of identification, ultimately becomes a potent lever in the hands of the psychoanalyst and can be successfully made use of in psychotherapy. In the psychoneuroses, more particularly hysteria, there is a tendency to invest various parts of the body with the energy derived from the sex impulses and to genitalize them, as it were. Although in hysteria regression takes place to the last, or third, phase of psychosexual development, it is obvious that at that stage of childhood normal adult activity is not possible. Whatever gratification may have taken place was really in the nature of a substitution phenomenon. But the return by the hysteric in phantasy to that stage permits of the same unconscious erotic gratification which the child supposedly derived, and the symptoms referring to the bodily parts are symbolic representations of the role those organs played in the infantile activity. The reinvestment of organs with libidinal energy, that is, cathexis, is regarded as a conversion phenomenon. From this is derived the name of *conversion hysteria*.

But not all of the libidinal energy is directed to bodily organs. Some of it finds objective attachment to individuals and goes

into transference and identification, and whatever is left frequently remains free. As in the case of anxiety neurosis it gives rise to apparently unmotivated anxiety which has all the characteristics already described. But in hysteria the anxiety may be displaced and anchored to external objects or situations and thus give rise to phobias. This projection occurs because of the anxiety which conscious realization of a repressed wish would entail. The *phobia* may also represent a repressed complex, whose affective tone has become detached and shifted onto an idea which bears relation to the unconscious one, minus its sexual connotation. But whether sexual or not the interpretation is that all phobias represent an unconscious sense of guilt attached to an early memory. The essential point is that hysterical anxiety differs from that observed in anxiety neurosis in that it is capable of greater elaboration, that it is not directly dependent upon frustration from without, and that it may even undergo conversion. Because of the presence of other hysterical mechanisms, and not infrequently of somatic conversion phenomena, the condition is one of *anxiety hysteria*. It should be added that despite the great lability of affect in all the forms of hysteria, there exists a certain schizoid element, a state of narcissism.

Compulsion neurosis, also known as *obsessional neurosis*, constitutes the second group of the transference neuroses. But here the regression goes deeper and proceeds to the second or pregenital phase, when heterosexual differentiation did not as yet exist, though object choice was already present. The compulsive neurotic, therefore, betrays unconscious homosexuality, he shows oral, anal, and urethral erotism to a marked degree, and sadism is quite a prominent feature. Ambivalence, which may express itself in compulsive doubts, together with obstinacy, stinginess, pedantry, preoccupation with oneself, and inability to surrender what belongs to the self characterize the compulsive neurotic. All the phenomena are those of pure psychic elaboration. It is more or less of

an intellectual process, and it is a fact that compulsion neuroses occur most frequently in persons with relatively higher intellectual endowment. Because of the deeper regression and the comparative fixity of the symptoms compulsion neurosis bears some resemblance to schizophrenia. Indeed every compulsive neurotic has a definite schizoid background, and that is why few or none are cured even though symptoms are removed. But there is this difference, that, as in hysteria, the energy which is anchored to ideas in phantasy can be shifted to objects in the outer world, or to the analyst, and from him to situations which permit of normal adjustment. It, too, then, is a transference neurosis. Because of the pure psychic elaboration conversion symptoms are lacking, but anxiety may appear whenever the unconscious cravings threaten to break through the defensive elaborations. In essence the compulsive mechanism is a defensive reaction, a denial or rejection, not a fulfillment, of an unconscious wish, and not a compromise as is the hysterical symptom. The ceremonial elaborated by the compulsive neurotic absolves and protects from the unconscious guilt. The compulsive symptom is a true reaction formation derived from the repressing force and is opposed to the unconscious wish.

Although we are not concerned here with the *narcissistic neuroses*, because they fall within the group of the psychoses, the conception of the mental mechanisms involved is of value not only for rounding out the psychoanalytic theory, but also for the diagnostic criteria it may furnish for the differentiation between the neuroses and the psychoses. The narcissistic neuroses illustrate states of regression to the earliest phases of psychosexual development, to the stage of auto-erotism. The descent is to the most infantile levels of narcissism, sadism, and homosexuality. As a defense mechanism against those unconscious cravings the ego sets up ideas of projection which consist in ascribing to the world of reality impulses and phantasies which rage within. Out of this is born the

delusion of persecution, which is primary in true paranoia and secondary in other psychoses. In the case of the depressive psychoses there is, so to speak, introjection of objects or persons, and the process of restitution may be carried out by means of identification. In those cases, too, the ideal ego seems to mete out terrible justice to the ego proper, or the one with whom it identified itself, and the suicidal tendency is merely a revengeful, sadistic expression against the self or the one with whom it was identified. Whereas the depressed psychotic submits to his fate, the manic rages against it and the paranoiac seeks relief from his intolerable strivings by projecting them outward. All these phenomena represent efforts at restitution. What characterizes the narcissistic psychosis is complete loss of contacts with reality by the conscious ego and the laying bare, as it were, of all the mechanisms of the unconscious without any attempt at repression. The result is utter absence of insight into situations. Narcissism, absolute divorce from reality, the existence of a pure phantasy life, dissociation between object and affect, between intellect and emotion, complete regression, absence of all repression, and ultimate deterioration characterize the advanced schizophrenias (dementia precox). But not all the psychoses illustrate such complete gutting of the personality. There may be contact with reality at certain points and not at others, that is, a vertical rather than, or as well as, a horizontal splitting of the personality. So that one may see irregular, episodic but definite psychotic reactions in the midst of normal behavior, or even complete normality with isolated delusional or hallucinatory manifestations. This is what actually takes place in true paranoia where aside from the one well-systemized delusion the mentality is otherwise intact and contact with reality almost wholly unimpaired.

The conclusion that normal mental processes differ in degree rather than in kind from the abnormal has led to the further observation that numerous abnormal mental

mechanisms may be found in persons who are commonly regarded as normal. This implies, as a corollary, the recognition of a very large group of inwardly maladjusted individuals who do not properly belong to any of the classifications mentioned thus far. Although such persons do not present actual medical problems, they constitute, what is becoming more and more evident, the very grave social problems with which modern social psychiatry is only now beginning to grapple. They are the individuals who by their apparently normal conduct accelerate, retard, or misdirect the social wheel. As a rule they are neither happy themselves nor make others happy. They are problems, or rather, lessons in education. Individuals belonging to this very large and ill-defined group are regarded as persons of *neurotic character*. To some extent the designation is misleading inasmuch as it erroneously implies a type of mentality whose motivation and reaction differs on the one hand from the normal and on the other from the abnormal. This obviously contradicts alike the most fundamental concepts of normal psychology and psychopathology. But for want of more precise definition and sharp classification the designation may be temporarily accepted and may even serve a useful purpose.

In order not to exaggerate the dynamics of the mental processes of the average neurotic or paint in too depressing colors his character traits, it is necessary to point out that the possession of a mild neurosis does not imply an abnormal personality. Some degree of neurosis may actually add to the mental stature of an individual and might perhaps be looked upon as the salt of personality. A fair amount of inner conflict may be regarded as the mainspring of useful activity. Nor is even a marked neurosis incompatible with considerable usefulness both as an individual and member of society. Indeed most creative artists, many genuine humorists, not a few brilliant scientists, and numerous others who have in many ways contributed to spiritual and material

progress have been considerably neurotic. And it is no exaggeration to say that unless one has a certain amount of inner conflict which he can sublimate into socially useful activities he is not likely to rise above the level of the well-adjusted cog in the social wheel. Finally, to have a neurosis at all one must have a sufficiently developed conscious and unconscious mind out of which character and personality can be formed.

The *constitutional psychopath* and the *neurotic child* are generally included under the vague heading when they are not pigeonholed in special classifications of their own. The former obviously implies a degree of hereditary determination which outweighs all environmental influence, while the latter betrays few or no mental characteristics with which psychopathology is not familiar. Indeed it is common knowledge that in a great many instances the neurotic child is essentially the victim of faulty attitudes on the part of parents, more particularly the mother. But it is equally true that the whole group is conditioned by constitutional factors, whether psychosexual or other, which must be regarded as hereditary burdens. Out of this conception a number of character types have been created in the light of modern psychopathology.

Jung introduced the very useful terms of *introversion* and *extroversion* to describe the psychologic reaction types into which humanity in general may be roughly divided. The *introvert* is the subjective individual, given largely to phantasy life, to withdrawal from reality. He regards everything more or less from the aspect of his own individuality, a man of deep feeling who communes with himself and solves problems in terms of his own mental reactions. He has the capacity of withdrawing into himself and of isolating himself from the group, hence he is not very sociable. The *autistic type* of Bleuler bears many of the ear-marks of the introvert. In psychoanalytic terms the libido energy is turned in upon his own personality. To this group belong the religious cranks,

the "deep thinkers," the poets, the inventors, the artists, the sensitive individuals who are regarded as creative. The *extrovert* is the objective individual who creates values in terms of externals. Phantasy plays a comparatively small rôle in his mental life. He projects everything into the outer world. He is the objective individual who reckons with reality, hence does not isolate himself. He is the typical good fellow, the doer, the politician, the group man. The libido, to speak once more in psychoanalytic terms, radiates out and is anchored onto objects and persons in the outer world. Obviously no person is either completely introverted or entirely extroverted, but in every individual there are sufficient preponderating characteristics of the one or the other type to warrant general classification.

The terms *schizoid* and *syntonic*, introduced by Bleuler, or *schizoid* and *cycloid* (cyclothymic), insisted upon by Kretschmer, are more or less comparable respectively to Jung's notions of the introvert and extrovert. The schizoid is a shut-in personality, unsocial, introspective, given to phantasy, outwardly rather poor in emotion, whose affective life is more or less dissociated from its ideational content. The syntonic, on the other hand, has a considerably more integrated and stable personality. The cycloid is an individual who oscillates between exaltation and depression. According to Kretschmer's hair-splitting definition introvert and extrovert refer to types of temperament, schizoid and cycloid to faulty character development. What is important, however, is that introvert or schizoid betray in a mild degree reaction types which, if exaggerated, become the outspoken ones of the schizophrenic (dementia precox) psychoses, while the mentality of the extrovert, syntonic or cycloid bears similar relation to that observed in manic-depressive insanity.

The *borderline cases*, which hardly fit into any classification, represent the not uncommon instances in which it is difficult to say whether they belong to the neuroses or the psychoses,

for the reason that the mental reactions partake of both. While the easy transition from what is regarded as normal to the mild neuroses does not present a grave problem, at least in the medical sense, the differentiation between a deep neurosis and early or mild psychosis often does. Such cases not only tax diagnostic skill, but frequently baffle therapeutic effort, and the problem is all the more serious because there is at present no adequate social or medical solution for it. It has already been pointed out how difficult it sometimes is to tell clinically the difference between a complex compulsion neurosis and a schizophrenic psychosis, and in some instances to differentiate them psychologically. There is an unconscious homosexual, sadistic, and narcissistic component to each, and in both the regressive roots strike very deeply. The numerous and fairly definite clinical and psychologic criteria simply do not help in many cases, and it sometimes takes months or years to arrive at a correct diagnosis. Similarly it is occasionally difficult to differentiate between the depressed state of a neurotic and the mild depression of a psychotic. An exaggerated compulsive idea to kill a near and dear person, though hardly likely to be carried out, may not be easily told apart from a delusional trend of a similar nature. Nor, in the light of what has been said of hypochondria, is it always easy to state where the true neurosis ends and the somatic delusional ideas begin.

Finally, the *mixed neuroses* defy both psychologic and clinical stratification. They constitute, perhaps, the largest group and not alone illustrate the need for elastic classification, but in a measure serve to explain why various writers see fit to lump a series of symptoms now in one group now in another. Whatever the psychologic interpretation may be the fact remains that in many cases one sees existing side by side anxiety of various degrees of intensity, mild phobias, a few conversion hysterical signs or symptoms, some hypochondriacal complaints, and possibly mild or severe compulsive ideas.

So, too, the growing conviction that a schizoid element goes into the formation of hysteria and neurasthenia, not to mention compulsion neurosis and hypochondria, does not render classification any easier. The answer in many cases must be that instead of making rigid nosologic entities it would be better to speak in general terms of psychologic mechanisms or dynamic symptomatology, and where practical considerations demand a classification to adopt, with mental reservations, the one which most fits the momentary clinical picture.

Perversions do not properly belong to the general class of the psychoneuroses, as they do not quite depend upon very complex mental mechanisms for their production. In psychoanalytic terms the perversions represent regressions to infantile levels, to the various stages of psychosexual development when the partial, polymorphous impulses were dominant. Were it not for the moral and ethical social connotations involved, many of them could more properly be regarded as *reversions*, in some instances as atavistic regressions. Psychologically the perversions are characterized, in addition to the regression, by the slight influence or complete absence of repression and by practically the complete elimination of inner conflict. The primitive sex impulses being unbridled by repression, unfettered by social morality and uncensored by an ego ideal, the pervert escapes unconscious conflict. Whatever difficulties, or external conflict, he does encounter are mostly, if not entirely, due to the social interference with activities which have his own fairly complete sanction. The genuine pervert does not believe that he is sick, refuses to admit that his activities bear a stigma, rarely or never seeks medical advice, and only consults the neurologist, sexologist or social psychiatrist when he would escape the penalties which conflict with the law entails. But distinction must be made between the innate perversions of individuals, whose poverty of impulses for normal, heterosexual relations is probably constitutionally determined, and the partial or acquired per-

versions which exist side by side or alternate with both the capacity and the desire for normal intercourse. While all perversions bear more or less the impress of uncontrollable impulsive, if not compulsive, acts, inner conflict is engendered only in those cases where they are partial and acquired. To the temporary perversions belong such as arise among persons confined to prison for long terms, among sailors (this used to be not uncommon in the days when boats took months plying the seas), soldiers and other men isolated in distant camps; the acquired ones not infrequently crop out among boys or girls in seminaries, in other places where women defy and frustrate natural impulses by segregation away from men, among those surfeited by normal relations who seek strange and more potent sexual excitation, and among persons past middle age who would flag their waning powers. Perversions are comparatively more common among cultured, intelligent persons and seem to increase with leisure and the progress of civilization.

Some tendencies to erotic expression in ways other than through simple sexual intercourse to a certain extent characterize all normal love life. It is only when those and other tendencies are grossly exaggerated or when they are not definitely directed to, and essentially in the interest of, the procreative act and become ends in themselves that they constitute perversions. Thus, in mild form sadism, masochism, fetichism, and exhibitionism come within the limits of normal; as ultimate ends in themselves they are true perversions. Except in its sublimated form as the basis of friendship, homosexuality always is a perversion, pederasty, necrophilia, and bestiality obviously so. By itself *masturbation* cannot be considered as a perversion. The practice is so universal with boys and so common among girls that it may almost be considered a "normal" transition stage to heterosexual relationship. In girls and women the act of self-gratification, though of much greater variety than among

boys and men is psychically probably less complex, and in, both harm only results from excessive practice, especially if accompanied by an exuberant phantasy which leads to withdrawal from reality. Ejaculatio precox in the male and inability to enjoy normal sex relations by either sex are the possible penalties for excessive youthful indulgence. Persistent and inveterate masturbation, particularly after normal intercourse is possible, is definitely abnormal, and may even be regarded as a perversion. In any case masturbation is more properly regarded as a symptom than a cause. Masturbation is not uncommon in hysterical women who are otherwise anesthetic, it is occasionally flagrantly and continuously practised by schizophrenics, and at times is a symptomatic act in other psychoses, especially hypomania.

By *masochism* is understood the gratification of sexual desire through the suffering of pain. To a slight extent it is characteristic of the normal woman. The very act of being in love implies a submissiveness which is psychologically akin to masochism. The apparent enjoyment of suffering which many people display undoubtedly involves a similar mechanism. But in its exaggerated form masochism consists of the actual suffering of physical and mental pain, such as bodily injury or gross insult, before desire can be aroused, potency brought about, the sexual act consummated, or gratification derived. *Sadism* is the gratification of sexual desire by the infliction of pain. Again, in a mild degree it is characteristic of the male. The frequent, and apparently unmotivated, cruelty displayed during political and religious orgies or wars and their aftermaths, to some extent during games of combat and in collective or individual persecutions are expressions of desexualized sadistic impulses. But the true sadist may be impelled to inflict injury, sometimes serious, at times mutilating, and occasionally fatal, before he can either consummate the act or derive gratification. Indeed, in some instances the mere infliction of pain, as an act of substitution, is sufficient to

bring about gratification. The Jack-the-ripper and Bluebeard types belong to this category. *Fetishism* is the sexual gratification through sight, smell, or touch, either of the body of the beloved other than the sexual organs, or, and this is more significant, by means of objects which are endowed with sexual meaning. Thus, some individuals, especially men, have their desire aroused by perfumes, handkerchiefs, shoes, clothes, particularly undergarments, or trinkets belonging to women, and may even have gratification up to the stage of orgasm by playing with those objects.

Exhibitionism consists of the sexual gratification through exposure of the genital organs. The male more than the female betrays this form of perversion, though the more refined variety is rather the prerogative of women. In its sublimated form it is a common characteristic of actors, writers, orators and others who love to exhibit their mental and physical prowess. Displaying a pretty limb, alluring breasts, or on occasion the nude body, and the more refined forms of coquetry are the natural expressions of exhibitionism. *Homosexuality* consists of the practice of sexual relations with persons of the same sex. The two phases of homosexuality are the active and the passive; the former consists of playing the rôle of the male and the latter that of the female. The individuals of either sex can play the one or the other of those rôles in respect to their partners of the same sex. Less flagrant but very significant illustrations are the masculine women who envy man's ways and want to emulate all his actions, the feminine men who would stay home to rock the cradle or wash dishes, and the young women who have "crushes" on their girl or women friends. Psychoanalytically, the impulse is regarded as being derived from too intense identification in childhood with the parent of the opposite sex (the reverse phase of the Oedipus situation); conversely, the sublimated homosexual impulse is supposed to underly normal friendship. Intercrural, oral and rectal (pederasty) inter-

course are practised actively by the male; *cunnilinguism* (lingual titillation of the female genitals) and *fellatio* (taking the penis in the mouth) by both sexes, though the former mainly by men and the latter more commonly by women. *Bestiality* denotes the practice of sexual relations with animals; *necrophilia*, with dead bodies. The former is said to be common in rural districts. Many of the perversions may be observed as symptoms of the psychoses, while mental defectives are sometimes induced to practise them by more intelligent perverts.

We have in this chapter outlined a tentative classification and advanced psychopathologic and clinical reasons for it. It is worth reemphasizing that our actual knowledge does not permit the creation of exact nosologic entities; that every neurosis is colored by a definite character make-up, that is, it is silhouetted against an hereditary, ineradicable constitutional factor; that a certain schizoid element tinges practically all of them; that mixed, transition and borderline cases predominate; and that in every neurosis there are evidences of normal behavior, of abnormal regressive phases, and of restitution phenomena.

CHAPTER V

CLINICAL MANIFESTATIONS OF THE NEUROSES

In the previous chapter it was pointed out that the classification of the neuroses was often difficult because neither the signs nor symptoms always constituted well-defined entities; that while, in a general way, the grouping of symptoms justified more or less specific designations, a correct diagnosis could be more reliably based on etiology and mental mechanism than on symptomatology; and that mixed neuroses exhibiting symptoms of several entities, even though one group characterizing a particular syndrome predominated, were quite common. It would, therefore, seem conducive to a better understanding of the whole clinical problem to describe the various manifestations of the neuroses and merely indicate into which particular syndrome they most often fit.

Before proceeding I should like to call attention once more to the apparently changing manifestations, or mutations, of the neuroses, particularly of hysteria. It has been generally remarked, at least in this country, that in the past two or more decades neurologists have not frequently observed the types of cases which have been so meticulously described by older writers and apparently were fairly common in those days. One seldom sees in private practice, large clinics, and neurologic hospitals, hysteric paralyses, amauroses, aphonias, grand crises, speech disturbances, gait anomalies and other gross defects simulating organic disease of the nervous system. To be sure, they are encountered here and there, but essentially one meets with vague anxieties, phobias, compulsion or obsession neuroses, ill-defined neurasthenias, other psychic symptoms, so-called neurotic behavior, schizoid character-

istics, and general maladjustment. That is, instead of finding expression at what I designated as low somatic levels, the neuroses manifest themselves at higher psychic levels. With the exception of the cases which resulted from the World War, when the grosser somatic manifestations occurred in vast numbers among soldiers of all nations, I believe the statement holds true, and I should like to venture a speculative explanation. The war neuroses probably differed from peace neuroses in that the former were so-called ego neuroses, involving essentially the instinct of self-preservation in the face of immediate danger to life.

In psychologic terms every neurosis represents in some measure an attempt at adjustment, as the result of external and internal conflict, and in social-biologic terms is regarded as an escape from the unpleasant facts of life which are difficult to hurdle. The neurosis, then, is a flight from reality. This mechanism is commonly observed at puberty, in adolescence, in general love life, and in numerous social situations; that is, whenever the maturing individual finds it impossible to hurdle difficulties in his path he seeks solace in phantasy. To a certain extent a neurosis is the possible penalty one may pay for growing up, or for the unsuccessful attempt to grow up. It should be noted, however, that the conflict varies not alone with the individual, but with his environmental conditions and especially with the intensity of the prevailing moral, ethical, religious, social and economic forces which go to mould his character. So that mental manifestations which may at one stage of social development be regarded as normal may with changing times, places, and concepts be looked upon as neurotic or even psychotic. But whereas belief in witchcraft or demoniac possession is now definitely regarded by civilized persons as delusional, religious rituals, such as putting on phylacteries, salaaming, or making the sign of the cross in prescribed fashion, are not, except by those to whom the practice is strange. Religious rituals or ceremonials, therefore,

not only bear the imprint of compulsive neurotic reactions, but serve as useful outlets for individuals. Indeed hysterical religious waves, such as tarantula dances, flagellations, crusades or the more modern revivalist epidemics have generally served as outlets for whole groups. By taking collective part in a social neurosis each escaped an individual one. To this day a Catholic girl disappointed in love or otherwise incapable of facing reality may escape conflict by retreating into phantasy and "marrying" an ideal in a nunnery; but if a Protestant, Jewish, or Mohammedan girl suddenly adopted the same way out of her difficulty grave suspicions might justifiably be aroused as to her sanity.

The question which presents itself is, whether people, like individuals, pass through comparable stages of development in their march from infantilism to maturity. May one say, to reverse the well-known biologic law, that so far as the development of organic society is concerned, phylogenesis repeats ontogenesis? Individual neuroses are probably less common among primitive people, because their whole life, their rigid customs, rituals, and taboos constitute, according to our more mature view, an infantile way of life, a collective neurosis. The best the primitive fellow can do is to run amok. The very great increase of the higher, psychic neuroses among the more advanced and cultured peoples may justify the statement that the individual neurosis is a luxury which only civilized man can afford. While reliable observations are wanting and statistical records meagre, a personal experience over a great many years may possibly bear out such a view. The neurologic department of the Vanderbilt Clinic with its yearly admission of over two thousand new patients showed in one statistical study an incidence of 27.5 per cent. of neuroses among negroes and 55.5 per cent. among whites. But what is equally pertinent is that among British West Indian negroes, who are generally better educated, more intelligent, and socially superior to their American brothers,

the incidence of neuroses was 37.5 per cent., that is, 10 (actually 30) per cent. higher. It is noteworthy, too, that the Jews, who represent perhaps the oldest civilized people, have the highest incidence of neuroses. I do not know what the incidence of neuroses is among the Chinese who are an even older and also civilized people.

Without further laboring the point, I wish merely to record the observation that the manifestations of the neuroses seem to be undergoing a change; that the older types might be regarded as low level or somatic reactions and the newer ones as higher psychologic; that the external factors and the methods of adjustment to changing educational, social, ethical, religious and other environmental influences have changed and not the psychologic processes of the individuals themselves; and that with increasing complexity of civilization the conflicts have, if anything, become more intense, the needs for individual neuroses, because of weakening collective ritualistic and other neurotic behavior, have become greater, and the social casualties more numerous.

Anxiety.—It has been repeatedly stated that generalized anxiety is the most common symptom of the neuroses and to a large extent colors almost all of them. It constitutes practically the whole symptom-complex of anxiety neurosis and characterizes in the main anxiety hysteria, though in both cases the patients may complain of a host of vague and comparatively irrelevant symptoms when they suffer most intensely from the anxiety. It is generally associated with specific hysteric phobias, not infrequently occurs as a secondary mechanism in neurasthenia and hypochondria, and occasionally is very intense in the psychoses, particularly manic depressive states and involutional melancholia. Anxiety invariably ensues in compulsion neuroses whenever the individual cannot give free play to his obsessive ideas or his protecting ceremonials are broken up, and inevitably accompanies or follows ideational hysteric fears (phobias) when the

sufferer cannot defend himself against them. It generally is an acute manifestation, occurring episodically by day or night, but frequently persists in chronic form for varying, sometimes indefinite, periods. The individual is in a state of inner demoralization and he is incapable, as a rule, of accounting for his condition, even though he have excellent insight into his state, be repeatedly assured of the groundlessness of his fears, or himself realize the absurdity of his complaints. The anxiety is intensely real to the patient. Sometimes it is vague and indefinite, consisting of the simple fear that something inexplicable will happen; at others there is fear of some impending disaster, of heart failure, insanity, cancer, apoplexy, other sudden death, and so forth.

The state of anxiety may either arise spontaneously, without evident cause, or follow some specific emotional upset, such as an altercation, bad news, the information that somebody died of a disease which the patient promptly ascribes to himself, slight indigestion, some apparently trifling occurrence, or other insignificant external or internal stimulus. Not infrequently the patient goes to sleep perfectly well and wakes up in the middle of the night with the anxiety. (In those and other cases actual organic disease of the heart, more particularly angina pectoris, asthma and various gastro-intestinal upsets may underlie the anxiety.) During the acute attack the heart palpitates violently, there is a choking feeling in the throat, sometimes of a lump sticking in it or travelling up and down, breathing is rapid or labored, the patient trembles all over, feels dizzy and faint, cannot think or concentrate upon anything, and has a feeling of dying or going out of his mind. The face appears anxious, pale or flushed, the blood rushes to the head, cold sweat often covers the body, the limbs, especially the hands and feet, feel numb or "dead," the patient has frequent desire to urinate or defecate, and occasionally has diarrhea or vomiting. After a variable period, during which the patient is frantically begging for help and wants to be

surrounded by his family, the attack tapers off, and following hypodermic or other medication fortified by repeated assurance of the physician, the acute demoralization subsides. Not every attack of anxiety is characterized by all the manifestations just enumerated, but many are and the first one is generally apt to be the most severe. The chronic anxieties, in particular, are milder, but all are characterized by the vague fears and especially the fear of death, insanity, heart disease, or some other special disease. True hysteric anxieties are apt to be more acute and intense, but after their disappearance the patient is apt to feel "perfectly well"—until another wave comes along.

Terrifying dreams occasionally precipitate attacks or altogether take their place. *Pavor nocturnus*, in effect, represents an attack of anxiety and illustrates a classical hysterical phenomenon. While *nightmares* are generally supposed to occur in childhood they are not so very uncommon in adults. The classical terrifying dream consists of intense dread, sensation of tightness about the chest or throat and a feeling of suffocation, a sense of oppression as if weighted down, a feeling of immobility and helplessness, and utter inability to fight off the danger, to move or cry out. In the more elaborate nightmares the individual may feel a monster sitting on his chest and terrifying him with his fiery stare; the monster may coil around him, seize him, drag him rapidly along or precipitate him from dizzy heights into a deep abyss. There may be sudden awakening with a feeling of helplessness, or gradual coming to with groans and cries, and profuse perspiration covering the body. Psychologically the nightmare is regarded as the manifestation of a repressed unconscious conflict, as the gratification of an erotic phantasy, and a punishment for the lustful feeling. The older and discarded theory was that eating late at night is apt to bring such dreams.

Hysteric anxiety, or what commonly goes under the name anxiety hysteria, is frequently accompanied by other signs

and symptoms, particularly conversion phenomena (*q.v.*), and is in itself regarded as a conversion symptom. Altogether it is conceived of as a higher psychologic mechanism and as representing a definite unconscious wish. Thus the fear of dying or that others might die may symbolize a true death wish, the fear of hurting others an actual desire, and so forth. The anxiety occurring in anxiety neurosis, depending as it generally does upon a specific factor, is perhaps less intense and more continuous. But whatever the theoretic, psychologic distinctions, clinically it is not easy to distinguish between the two forms. Insomnia not infrequently accompanies the anxiety, or is the result of it, and "vertigo" is very commonly associated with it. The dizziness, however, is not a true labyrinthine phenomenon and consists of a vague feeling of giddiness. The patient does not fall and really does not stagger as in true vertigo. Nor is genuine nystagmus ever present or vomiting an essential part of it. Yet the subjective feeling that the legs are heavy and will give way is very real, and anxiety generally intensifies the sensation. In anxiety hysteria as well as anxiety neurosis digestive disturbances, diarrhea or constipation are rather common, dysesthesias and various other subjective complaints not rare, and vague somatic conversion signs not unusual.

The following cases, culled from private practice, represent typical instances of both anxiety neurosis and anxiety hysteria and illustrate the clinical difficulties of distinguishing between them.

Case I.—G. R., a married woman of twenty-nine complained of weakness, nervousness, trembling, palpitation and attacks of faintness, headache, and loss of appetite. She was afraid of dying, of going crazy and of being alone. She had occasional choking sensation in the throat. More detailed questioning elicited the information that one evening, while in company of friends, she suddenly became pale and weak. She trembled all over, felt that she was dying, vomited, and

after a while got over the attack. She then began having these attacks with gradually increasing frequency. In addition she began to dread insanity because her mother, whom she resembled, had one psychotic episode. The patient had always been "nervous" but otherwise felt well. She is married, has two children, and following the birth of the second began to dread pregnancy. She loves her husband, desires intercourse and craves gratification, but cannot have any because the husband, abhorring the use of condoms, practises coitus interruptus, and so she has come to dread sexual relations. The patient improved considerably after receiving appropriate explanation and advice and after enlisting the sympathetic coöperation of the husband.

Case II.—K. G., a married woman of thirty-four, feared insanity and death, was considerably depressed, and had crying spells. She had been a lively, sociable girl, and sexually vigorous. She married a man who suffered from ejaculatio precox, and in order to derive any gratification resorted to masturbation after marriage. She became depressed and anxious, especially following menstruation. She dreads going to sleep. The fear of dying followed the death of her mother-in-law from cancer. Conflict over masturbation brought on fear of insanity. On one occasion the sight of a knife gave birth to the dread thought that she might hurt her children. Following a dream that she had hair in her throat, which choked her, she began to experience peculiar fluttering vaginal sensations. She is very fond of her husband, whom she considers a good man, but she is more attached to her father. The husband refuses to be treated, and the patient has not improved.

Case III.—G. J., a bright girl of thirteen and a half, in the second term high school, suffered for the past six months from spells of screaming during which she expressed fear of dying and of going crazy. The story was that one day, while riding in the subway she suddenly felt numb all over, got scared, screamed "mama," and "carried on" for fifteen minutes. Since then she has been having similar attacks, at home, in the street, by day or night. She is the youngest of four children and sleeps with her mother. She began masturbating at the

age of eleven and kept it up until the advent of her menses, which was shortly before the present illness set in. She began having conflicts over the masturbation which she thought would make her crazy. Frank discussion cleared up the anxiety.

Case IV.—L. S., a married woman of thirty-five, complained of irritability, severe headache and depression, of tenseness and loss of self-control. She has fear of death and insanity. She cannot travel in the subway and becomes terrified if she does because of a feeling of being trapped and suffocated. She thinks it is stupid but cannot help herself. She was a happy, sociable school teacher when she married, at twenty-five, a fine gentleman whom she loved and who has made an excellent husband and devoted father to their two children. She used to masturbate as a girl, but not since her marriage. She craves orgasm which she has only rarely because of her husband's ejaculatio precox which leaves her "in the air." In addition, the husband is a sadist and flagellates her. They also practise coitus interruptus because of fear of pregnancy. She is jealous of her husband who occasionally neglects her for a more masochistic mate. The patient realizes the whole problem, but the husband cannot be made to coöperate. She has improved but little.

Case V.—G. N., a young fellow of seventeen, complains of uncontrollable nervous spells during which he shakes all over, gets shocks on top of the head, has nausea, inability to catch his breath, palpitation, and intense fear of becoming insane. In addition he feels mixed up, staggers, is afraid of falling, and complains of pains in the head. These spells, which now come on irregularly, followed the sudden onset of anxiety two years before while he was on an elevated platform waiting for a train. The patient is the youngest of five children, intensely attached to his father and rather aloof from his mother. The father is an unusually religious man who stays home all day studying the scriptures and lets his wife support the family. The boy who is, if possible, more religious than the father, quit public school for a parochial school where he could more readily carry out all religious precepts. He is not unsociable

with the few boys who match his religious zeal, but is extraordinarily ritualistic and does not leave out a single ceremonial. He denies masturbation, in fact seems to be utterly ignorant of sexual matters, but has a dreamy look and a snicker withal which seem to belie his innocent protestations. The schizoid element underlying his anxiety hysteria made access to him almost impossible.

Phobias, which are not uncommon hysterical symptoms, represent specific, well-systematized fears with definite ideational contents as constellations, in contradistinction to the vague fears or states of anxious expectation which characterize the more common anxiety state. But, though phobias are hysterical phenomena and contain the elements of conversion, they simulate to some extent the obsessive or compulsive ideas. Psychologically the phobia represents an objectionable, and therefore a repressed, unconscious complex whose emotional tone has been displaced and shifted onto an apparently harmless idea. A further elaboration is the conception that the phobia symbolizes rebellion against authority (generally the parent of the same sex) and that the unconscious impulse associated, say, with a tabooed sexual act is shifted to anything which is prohibited. The latter explanation fits better the compulsive act, and indeed Stekel interprets kleptomania to be a symbolic representation of an unconscious wish to steal that which was forbidden; hence represents both a wish and a revolt. A less dynamic view regards phobias as disguised recrudescences of buried childhood fears. Rivers cites the instance of fear of closed places which was traced to a forgotten sudden fright sustained early in life when, pursued by a vicious dog, the boy ran into a passage from which there was no escape.

In both phobias and compulsions there is dissociation of affect from the unconscious idea, but in compulsion neurosis there is repression of the affect, while in phobias the emotional feeling tone is shifted to the expressed idea. The compulsion

is outwardly a purely intellectual process, the phobia an intensely emotional one. Anxiety always accompanies phobias, but is present in compulsions only when the defensive ceremonial breaks down or is interfered with. Reproach against early sex transgression is conceived of as the *motif* of the compulsion neurosis, the ceremonial being a defense mechanism secondarily elaborated. As compulsive elements are not infrequently engrafted upon all phobias it is sometimes difficult to distinguish between hysteric fears and obsessions without an analysis of the underlying psychologic mechanisms. Clinically, however, this is true, that hysteric phobias are amenable to suggestions, compulsive ideas never. In both instances the patient has enough insight into his condition to realize the ridiculousness of the idea, but he is utterly helpless in the face of it.

The phobias, or the disguised unconscious wishes, may represent general fear of snakes, mice or other vermin, thunder and lightning, darkness or specific things, places and situations. *Agoraphobia* signifies fear of open places, streets or squares. In trying to cross them the patients may stand, as if rooted to the spot, for minutes or hours and then be unable to do so unless reassured by an escort; sometimes the patient half-crosses, returns to the starting point, repeats it several times before he succeeds, or becomes completely demoralized in the attempt. Patients afflicted with this fear are often compelled by it to stay at home, unable even to visit a physician, and unwillingly become absolute recluses. Occasionally the fear is not that something dreadful will happen to the patient but that the danger threatens a near and dear relative. *Claustrophobia* is the fear of closed and crowded places, halls, churches, riding in cars, subways or elevated trains. The latter are very common, and the dread of death or some other impending calamity at times forces the individual to leave the train before reaching destination. *Mysophobia* is fear of dirt, contamination, or sickness. Such patients suffer in

addition from the compulsive need of repeatedly washing their hands. They are afraid to touch objects lest they acquire the sickness they dread so much. As the names imply, *anthrophobia* is fear of men, *erythrophobia*, fear of blushing (redness), *zoophobia*, fear of animals, *pyrophobia*, fear of fire, *phobophobia*, fear of fear, that is of being afraid. The phobias of actors to appear on the stage, of lawyers to plead in court, of preachers to mount the pulpit, of fliers to go up in an aeroplane, etc. are anxiety hysterical phenomena. In consonance with the view that phobias represent disguised unconscious wishes, *syphilophobia* may indicate desire for potency, fear of a man under the bed and shutting windows or bolting doors an obvious desire of the old maid, uncontrolled fear of sexual assault a desire to be possessed, and so forth.

The Symptoms of Neurasthenia.—It has already been pointed out that clinically neurasthenia at one time embraced a host of unrelated signs and symptoms, most of which are more properly classed under hysteria, and that the concept was extremely elastic. In recent years the syndrome has been considerably restricted, and many clinicians rarely make the diagnosis in actual practice. Whether or not masturbation alone is the cause, as psychoanalysis maintains, or some organic factors, especially hereditary, come into play, is still a debatable question. To a very great extent the symptoms of neurasthenia are subjective, and essentially consist of *abnormal fatigability* and *exaggerated irritability*. The "classical" neurasthenic shows both physical and mental exhaustibility to such a degree that the slightest effort seems to tire him. Indeed he wakes up in the morning feeling tired, complaining that sleep brought no rest, and is unable to take up his daily tasks. But the feeling of weariness generally wears off as the day progresses, he begins to feel better toward evening, and often regains full vigor before going to bed. The typical neurasthenic has no desire to go to sleep at night and does not want to get up in the morning. When he does go to bed

he often lies awake for hours, unable to fall asleep; but despite the fact that his slumbers are subsequently undisturbed he is still too tired to get up in the morning. He may also have desire to sleep by day. The onset is gradual, as a rule, often following habitual masturbation, the continued practice of which in turn keeps up the exhausted state. The excessive muscular weakness and the tendency to fatigue on slight exertion hamper all normal activity and make volitional effort painful. The mood is depressed, the patient is irritable, gloomy, introspective, and has no desire to work, to read, or do anything useful. His abnormal irritability and sensitiveness make noises intolerable and render all sorts of stimuli acutely painful and disagreeable. The neurasthenic is incapable of concentration or even due attention, therefore cannot keep up active or prolonged work. He generally complains of poor memory and even notes down his symptoms lest he forget to detail them to the physician. As a matter of fact, the memory is not impaired; it is really the poverty of attention, want of concentration, and preoccupation with oneself that do not permit the registration of new impressions. The patient generally lacks confidence in himself, has no self reliance, no "stick-to-it-iveness," is unable to make decisions, and wavers between opposing impulses, but not to the same extent as the compulsive neurotic who suffers from *folie de doute*.

The neurasthenic complains a great deal of numerous bodily ailments which cannot be verified by physical examination. This is especially true of biliousness, poor liver function, digestive disturbances and constipation. Headache is the most common subjective complaint, but this consists rather of a feeling of intense pressure on top and back of the head or of a band-like sensation all around it. The headache, like all other symptoms, is especially apt to be severe in the morning and to wear off as the day progresses. Pain and pressure all along the spine, but particularly between the

shoulder blades, are not at all uncommon and used to be considered quite pathognomonic of neurasthenia. Many patients complain of dizziness, which generally turns out to be anything except true labyrinthine vertigo, and consists essentially of vague sensations of falling or "swimming" before the eyes. The neurasthenic is mildly depressed, may say that life is not worth living or express the "wish" to die, but is never, or extremely rarely, suicidal as is the truly depressed person. One of my patients very seriously related to me that lying awake one night he thought of suicide and decided to turn on the gas to put an end to his misery. As he got out of bed to do it he noticed a bottle of milk in the kitchen; whereupon he drank some of it and went back to sleep. Another quite innocently told me that he thought sunstroke would be a good way out of his suffering, and so he walked bareheaded in a blazing sun, but as it got too hot he put his hat on and sought shelter in the shade.

The muscular weakness may affect the eye muscles and result in *asthenopia*, so that the patient easily tires on reading. Sometimes the complaint is of spots floating before the eyes. The general motor weakness, which never amounts to paralysis or even paresis, as it sometimes does in hysteria, may give rise to generalized tremulousness or fine tremor of the fingers and tongue. The patient sometimes complains of blood rushing to the head, of blushing easily in the presence of people, of a general feeling of heat and cold, more especially that the hands and feet are cold, of sweating on emotional excitement, or of waking up at night to find the body covered with perspiration. The pulse is generally labile and sometimes rapid. So-called *orthostatic tachycardia*, in which the pulse becomes disproportionately rapid on rising from a reclining to a standing position, is said to be a symptom of neurasthenia. Actually, aside from its occurrence in organic heart disease, it may be seen in many other neuroses. Occasionally one observes extra systoles and palpitation or lively pulsation of the abdominal

aorta. The blood pressure, too, is generally labile and often quite low. The cardiac condition is sometimes designated as *neurasthenia cordis*, and possibly is the result of disturbance in the innervation of the heart. What is commonly spoken of as *neurocirculatory asthenia*—a condition singled out from among the many war neuroses and erroneously erected into a special nosologic or clinical entity—may belong to the picture of neurasthenia or occur in the course of hysteria.

In addition to the many gastro-intestinal complaints, and especially pressure in the pit of the stomach and constipation, there may be actual gastric atony, enteroptosis or general visceroptosis. The appetite is not as a rule markedly impaired, though anorexia may be complained of. The general physical condition is generally fair, except for a sallow complexion in some instances. The deep and superficial reflexes are lively, as a rule, but there are no pathologic signs of involvement of the nervous system. Hysteric conversion symptoms are mild, if present; usually they are absent in simple neurasthenia. The various gastro-intestinal and other physical complaints are psychologically regarded as secondary conversion phenomena. Anxiety is generally absent, though it may ultimately be engrafted upon the underlying condition and color it to a great extent. This is especially apt to occur with regard to masturbation and its phantastically dreaded consequences.

The sexual disturbances, more than any other, color the whole clinical picture of neurasthenia. Although there are instances in which a history of masturbation cannot be elicited, the neurasthenic generally is or was a chronic masturbator, and where this actually was the prime causative factor the whole vicious circle is kept up by the practice. The neurasthenic constantly reproaches himself for indulging in it, wonders whether the action will be his undoing, and yet persists in the self-gratification. He suffers from frequent nocturnal emissions or diurnal pollutions, persistent but futile erections at night, spermatorrhea on slight stimulation by

day, ejaculation at stool, and partial or complete impotence. He dreads failure in anticipation of coitus, has deficient erection and premature ejaculation on attempting intercourse, a feeling of shame, disgust and depression after the failure, and complains of backache and prolonged exhaustion following emission. Withal, the neurasthenic has increased sexual appetite, which because of repeated frustration may increase with the passage of years. Naturally the neurasthenic is either unsuccessful in love or unhappy in marriage.

Case VI.—O. A., a man of thirty, artist by occupation, complained of want of self-confidence, of being ill at ease among people, of lack of self-reliance, of inability to face life in general, and of incapacity to concentrate upon his work or to take interest in things. He slept poorly, tired easily and suffered from obstinate constipation. The condition dated back many years. He began to masturbate very early, indulged in the practice daily or oftener up to the age of twenty when he “let up” a little, but kept it up to his marriage one year before coming to see me. He rarely had sexual relations before marriage and never successfully before or since. His premature ejaculation, among other things, led to trouble with his wife, so that they separated. She taunted him for his want of manhood and he chafed because she had no respect for him. He worked spasmodically and often sought forgetfulness in excessive drinking. Despite his intelligence the patient failed to coöperate. He had never been to a physician before, came for consultation only at the earnest solicitation of a friend, and really showed no desire to get well. This is quite contrary to the general tendency of neurasthenics to consult doctors all the time and to become the victims of quacks who thrive on the myths of “weakened manhood.”

Case VII.—R. I., twenty-three years of age, a stock clerk by occupation, complained of headache, inability to concentrate on his work, nocturnal emissions and diurnal pollutions, dizziness, continual tiredness, weakness about the heart, of blood rushing to the head, noises and pains in the ears, shaking

of the hands, insomnia, poor appetite, constipation, and poverty of memory. He had no ambition, was not interested in things, made few friends, was very shy with girls, never could find himself in company, could never look people straight in the eyes, blushed easily and always felt inferior to others. Laterly he began to feel scared and to be afraid of heart disease and insanity. The condition dates back to the age of puberty, although the patient thinks that a nightmare and one somnambulistic episode at the age of eight really marked the beginning of his trouble, as he was already scared of his teachers as a boy and generally found it embarrassing to recite in the classroom. He always was a "good boy," never had a fight with other boys nor ever got a licking at home. He had been to women about a dozen times in his life, but he either could have no erection or ejaculated prematurely, and then his heart would palpitate and he would vow never to make another attempt. This patient absolutely denied masturbation, though physical examination showed a large, tender, boggy prostate. Local treatment had no effect, general medication brought about some improvement and psychotherapy fortified it to a great extent, but the patient did not quite get well.

The following case illustrates another condition which may be mistaken for neurasthenia.

Case VIII.—B. N., a liquor dealer of forty-seven, complained essentially of tiredness and inability to get up in the morning. Prohibition had ruined his business and he did not have "the nerve" to ply his trade illicitly. He became irritable, dull and depressed, could not concentrate on business, slept poorly, lost his appetite, and suffered from constipation. His tiredness and depression wore off as the day progressed, and he felt much better in the evening. He smoked excessively, but drank rather moderately. Sexually he was potent. He had no headaches and no other complaints. The present condition had lasted about a year, but he had a similar condition five years previously. His general medical and neurological examination was negative; the urine showed no albumen, a few hyaline casts, a trace of sugar and a specific

gravity of 1020; the Wassermann test was negative; the blood pressure varied from 140 systolic and 90 diastolic to 122 and 75 respectively. The fundi were normal. The syndrome evidently was one of neurasthenia, though in spite of negative findings the suspicion of cerebral arteriosclerosis was temporarily entertained. [General medical attention cleared up the urinary findings, and psychotherapy seemed to have a beneficial effect on the mental condition. One day, without warning, the patient suddenly had a cerebral hemorrhage which resulted in a complete hemiplegia and aphasia. The case illustrates the possibility of organic disease, without definite signs or symptoms, simulating neurasthenia and the need of exercising unusual care in diagnosis.]

Hypochondria is really a symptom, or symptom-complex, rather than a disease, and to a certain extent represents an exaggerated preoccupation with one's body or organs. As has been pointed out, this is more or less a normal reaction in the course of acute illness, but when the tendency persists after recovery has taken place or appears spontaneously in the absence of demonstrable pathologic conditions it becomes definitely abnormal. It is quite possible that actual organic changes underlie the subjective complaints, or have existed at one time, but we have no way of discovering them by our present diagnostic methods. The important point is that the patient fixes his attention on internal ailments, on perverted visceral function, and constantly gives somatic expression to them. The symptoms of hypochondria, therefore, are as numerous as the bodily organs which can give rise to them. Very often patients keep on complaining that the bowels do not work, even though they have daily movements, that the liver is out of gear, that the stomach does not digest properly, or that the sexual organs do not function. In more advanced cases the same symptoms are considerably exaggerated, so that now the stomach is actually paralyzed, the bowels completely clogged up, the rectum entirely out of action, the

testicles dead and useless, the throat full of hair, the tongue coated and thick. The depth of all the complaints thus varies from the more or less superficial to the completely delusional. Want of insight characterizes both the superficial and the deeper complaints, though that varies with the depth of the hypochondriacal symptoms. The essential point is that the hypochondriac is perpetually busy with his bodily functions, forever doing something to make his organs work, always seeking medical or quack relief, and never getting any. The hypochondriac is more or less of a schizoid personality, he is not at all amenable to suggestive or other psychotherapy and stoutly resents any aspersion on the authenticity of his ailments.

Mild hypochondriacal complaints not infrequently color all of the neuroses. More pronounced symptoms are to be found in the psychoses rather than the neuroses. Most cases of hypochondria persist unchanged for years and years, sometimes in the form of isolated symptoms at others as kaleidoscopic manifestations. Many represent mild forms of mental disease, more particularly schizophrenia, and not a few are the early forerunners of outspoken organic or other psychoses. By itself true hypochondria is comparatively rare. Very often the hypochondriacal symptoms persist as true neuroses, but quite as frequently mild or severe anxiety accompanies the various complaints.

Compulsion Neurosis.—The theoretic aspects of compulsion or obsessional neurosis have been considered under Classification and in the discussion of hysteric phobias. Here it is sufficient merely to reëmphasize that pure compulsive ideas are psychoanalytically conceived of as psychic phenomena which have been elaborated in defence against early sex transgressions. In essence the compulsive phenomenon represents a reaction formation. The conception is that an objectional idea with its affective tone is originally repressed in the unconscious because of the conflict with social morality which it is apt to engender, the affect becomes dissociated

from the idea, and is attached to a harmless one which can enter consciousness. Ceremonials and compulsive acts which invariably accompany the obsessive ideas are then elaborated as defences against the fulfillment or repetition of the tabooed wish. In this sense the compulsion is a denial of gratification. Healy believes that the compulsion of boys to steal or commit other crimes is related to early experiences which have been associated with sexual offenses. Thus he relates the instance of a boy who was initiated quite early into the mysteries of sex by means of masturbation and at the same time taught to steal. Subsequently every desire to repeat the sexual act was accompanied by the desire to commit theft and every act of stealing by a feeling of sexual gratification. Such a reaction really partakes of the nature of a conditioned reflex. I have seen at least two instances of definite compulsion neurosis on the basis of epidemic encephalitis. In one case a girl with many of the sequels of encephalitis, including oculogyric movements, begot the irresistible compulsion to stare at people's eyes to such an extent that she made a nuisance of herself; in the second case a modest, sedate young woman developed a nymphomania following encephalitis and with it the compulsion to accost and touch men.

The compulsion always takes the form of a spontaneous idea or act which seemingly has no rhyme or reason and no association with the rest of one's mental processes. The idea appears strange, like a foreign body which does not belong to the ego. There seems to be intellectual dissociation, but not in the sense of hysterical mental dissociation, and the idea is to all intents and purposes absurd. But despite its apparent absurdity it remains fixed and cannot be banished from consciousness. The obsessive thought or compulsive ritual always appears meaningless and purposeless both to the patient and the superficial observer; but analysis practically always reveals its symbolic significance and frequently proves that the compulsive thought or action is a useful,

unconscious defense mechanism which is necessary to the mental economy of the afflicted individual. It can in many instances be traced to very early infantile wishes and bears the imprint of regression to unconscious sadistic, homosexual trends. The compulsive neurotic is considerably schizoid in character, very little, if at all, amenable to persuasion or even suggestion, rather set in his ways, meticulous, orderly, punctual, economical if not stingy, and generally of higher intellectual level than the emotionally more labile neurotic. In extreme instances it is difficult to draw the line of demarcation between compulsive thoughts and delusional ideas.

Compulsions are not uncommon before puberty and have even been reported in quite young children. They generally persist for a long time, often weaken or disappear spontaneously, and quite regularly recur in the original or different forms. They are comparatively frequent in adult and in middle age, and men are perhaps more commonly affected than women. Many otherwise normal individuals develop and continue to have throughout their lives "harmless" obsessional ideas and compulsive acts which are regarded as peculiar or mildly queer personal characteristics and do not interfere with intellectual or other activity. Simple compulsions not infrequently occur in many of the neuroses. The full-fledged compulsion, however, is quite different in its action. An apparently harmless allusion, a casual observation, fleeting thought, simple incident, or temporary action may be the starting point of an obsession. Gradually the idea takes deeper and deeper hold and continues to dominate the mind despite every effort to dislodge it. In fact, the more effort is made the more the idea persists. It is not amenable to logic or reason and, despite the fact that the syndrome belongs to the group of transference neuroses, is not influenced by suggestion or hypnotism. At times the obsession is so all-pervasive that the individual cannot think of anything else, pursue his occupation, keep up his studies, or do anything

useful. The recognition of the absurdity of the compulsive thought or act avails the patient nothing. The "will" is paralyzed in the face of the obsession. He has what Janet called *aboulia*—the symptom complex of psychasthenia. With it goes a feeling of incompleteness, a sense of depersonalization, an idea that a foreign will dominates and goads one on. There is a characteristic process of intellectualization, in consonance with the oft-repeated observation that the compulsive neurotic generally is an individual with more than average intellectual endowment. The two main divisions of this neurosis are compulsive thinking, with or without anxiety, and compulsive acting.

The compulsion may consist of the thought that the person ought to plunge off a height, such as a theatre balcony, bridge or precipice, to hurt oneself with cutting instruments, or injure others. The latter is very distressing in women who sometimes have the dread desire to cut their own children's throats, strangle them or throw them out of the window. The obsession may consist of blasphemous thoughts or take the form of sacrilegious impulses. It may express itself in persistent, futile and distressing doubts or questions about God, persons or things: why this, why that, why thus and not otherwise, why did God say this and not that, why does a given person act in one way and not another. This is the condition known as *folie de doute*, which is so often accompanied by anxiety and intense mental anguish. The impulse may be to count numbers, repeat them in a certain order and everlastingly keep it up if the sequence has been broken, to count windows, stories of a building, the number of steps, etc. The individual may express doubts about his address, whether or not he closed the windows, bolted the doors, turned off gas jets, then repeatedly proceed to verify the action despite the knowledge or assurance that everything has been attended to. The need of doing the same thing over and over again goes under the name of *repetition compulsion*. The obsession may

take on the form of soiling oneself and others, or take root as the persistent thought of jumping out of an upper story window, or otherwise committing suicide. The compulsive neurotic, unlike the depressed patient, is not apt to commit suicide and unlike the paranoiac practically never carries out the impulse to hurt others. Indeed he defends himself with undue, and therefore significant, vehemence against such harmful impulses. Sometimes the obsession consists of the pure ideational wish that misfortune, death or other calamity befall parents, children and other dear and near persons. The thought may persist that the nose is growing large, the ears protuding, or the hands and feet becoming huge. Psychoanalytically these are regarded as obsessions embodying phallic and potency symbols.

Very frequently the compulsive rituals are elaborated as defenses against the anxiety which is apt to be engendered by the numerous morbid impulsive ideas, although ordinarily anxiety is not a concomitant of compulsion neurosis. Indeed as long as the compulsive neurotic is able to carry out his peculiar ceremonial he is quite free from anxiety. He builds an outer citadel, as it were, against his unconscious strivings which carry the tabooed idea, that is, the repressed sex impulse. Very often the overt ceremonial represents the very opposite of what the unconscious wish happens to be, but the action is always symbolic in some way. Every compulsive neurotic is more or less ambivalent. Against the fear of soiling oneself or the accidental contact with germs the patient may repeatedly wash his hands; he may constantly look in the mirror to see whether his nose is growing; he may write down names and dates to assure himself against forgetting; he may walk along the curb in a certain way, follow the outlines of flagstones or approach doorsteps in a peculiar manner; he may spit in certain places and touch persons or things in a special way. Internal conflicts frequently rage in an individual who must carry out a compulsive act which

runs contrary to social custom and good breeding or violates law and morality; yet he frequently risks exposure, ridicule and even punishment rather than resist the impulse or endure the anxiety. Exhibitionistic impulses come under this category and so do many sadistic acts.

Infinite are the number of ceremonials which the compulsive neurotic may carry out in arranging clothes, pillows, chairs and other objects on going to bed, doing certain things in a definite order by day, at business, in making love, eating, drinking, or attending to bodily wants. Always the compulsive idea goads him on in almost irresistible fashion, as if an extraneous force were at work. Religious ceremonials come within the category of compulsive acts, with this difference, that they are sanctioned by religion, made respectable by custom and condoned by social morality. Wherefore they dispel doubts and prevent conflict rather than engender it. He who can find outlet in religious compulsive acts may be spared the need of evolving the individual socially tabooed one. The two may, however, coexist.

The compulsion to steal may express itself in *kleptomania*, to start incendiary fires in *pyromania*, to take drugs in *toxicomania*, and to drink to intoxication in *dipsomania*. The latter, in particular, is apt to become imperious and irresistible. The periodic drinking, aside from acting as an escape from the burdens of reality, may also be a defense against oneself and an attempt to regain normal mental poise. Every dipsomaniac paroxysm is preceded by depression and the overpowering impulse which can only be resisted for a time. This is sometimes regarded as an "aura." The suddenness of onset, spontaneous cessation, and subsequent repetition have led to the belief that dipsomaniac debauches have some affinity with epilepsy.

Case IX.—W. L., a married woman, twenty-six years of age, complained that thoughts of her own childhood kept recurring

to her mind, that she had the desire to hurt herself especially when she heard that some accident befell another person, and that she was afraid she would become insane. But what distressed her most was the compulsive thought to kill her boy of two and one-half years. She always hid cutting instruments, feared to be alone with the child and often kept away from home to prevent the possibility of hurting him. The first obsessive thoughts had been directed toward herself, but later to her child and finally she felt that if she killed him she would be relieved. The history is that she was a poor, self-educated, working girl who craved the better things of life which were beyond her reach. She was artistically inclined, loved music, the theatre and intellectual company. To escape the drudgery of work she married without love a simple, matter-of-fact, but very good and honest workingman, only to find immediately after marriage that she had made a mistake in choosing a partner whose character was the very opposite of her own. She had been a "passionate" girl whose sex phantasies were shattered by contact with real love. The sexual act disgusted her to such an extent that she felt like vomiting every time she had intercourse, and she began to hate her husband who was all the time kind, devoted and innocent of her thoughts. Meanwhile she became pregnant and she had an abortion induced. The second conception resulted in the birth of the unwelcome boy. As time went on she began to hate the husband because he was the father of her baby, since if she had no child she would be free from the man who was the cause of her misery. She knew she was unjust to him, that he deserved better of her, but she could not help herself. To make matters worse the boy looked the image of the father and was very much attached to him. As she slowly and resistingly unfolded her story in response to questions the thought began to dawn on her that the dreaded compulsion to kill her child actually represented an inner wish to be rid of him who more than anybody stood in the way of what she conceived to be freedom. The mere bringing to the surface of the superficial psychologic mechanism involved served to weaken her compulsion. Although no complete analysis was attempted subsequent

conversations led to tolerable readjustment with her husband and to freedom from the obsession.

Case X.—Mrs. M. S., a woman of twenty-seven, had the obsessive thought that hair was growing on her chin. She kept looking at the mirror and picking at her chin. She suffered from intense anxiety, stayed in bed most of the time and refused to go out because of the thought that hair was growing on her face. The obsessive thought first occurred to her at the age of twenty-two, four years before her marriage. She was a pretty, intelligent, sociable and popular girl, but the recurring thought kept her to a great extent away from the company of men. When she finally became engaged she confessed her fears to her fiance who laughed at her silly thoughts. On marriage it turned out that her husband was impotent, and, as I learned later, knew that he had been for a long time, but to cover up his own weakness he told the bride that his impotence was due to her undue resistance. As a matter of fact she had normal desire and had been masturbating for many years prior to marriage. She related the story that a man tried to assault her when she was a little girl of eight. Afterward she got the idea that she was not a virgin and for years the thought kept on plaguing her to such an extent that she constantly dreaded the possibility of the discovery by her future husband. The inaccessibility of the patient and the fact that she not only thought hair was growing but that she actually saw it and feared that others observed it when it was not there spoke for a delusional rather than an obsessive thought. The husband's past and subsequent behavior only aggravated matters. For a time she behaved like a schizoid psychotic, but she recovered considerably and thus far has remained comparatively free from the obsession.

Case XI.—A. J., forty-six years of age, an actress, complained of nervousness, of pains all over the body, of a bearing down sensation in her rectum and vagina, of fear that she will hurt people, of a peculiar anxiety about the time of the day, and of a compulsive desire to hide things. She was an intelligent woman and had been very sociable. She married young, divorced her husband, remarried and is said to have gotten on

ideally with her second husband. She was well up to the age of forty when she began to complain of bearing down pain in her rectum and vagina. A perineorrhaphy was done, but the symptoms became hypochondriacal and persisted despite the operation and various other treatments. Then the obsessive thoughts came on and she was compelled to leave the stage. She had no definite delusions or hallucinations, but she was extremely restless and anxious, feared insanity and dreaded the thought of being sent to a sanitarium. She was utterly inaccessible. Several months later the compulsions deepened into delusions, the hypochondriacal symptoms increased in number, and she finally died of an intercurrent illness.

Without going into great detail I should like to cite briefly a few cases in order to illustrate the way in which compulsions manifest themselves clinically: XII. A woman of forty-four complained, among other things, that she was afraid of germs and glass and that she had to wash her hands innumerable times a day. This came on four years before when she was nursing her husband who was suffering from tuberculosis. She would not touch cracked glass or porcelain and threw out all chipped objects lest their presence in the house lead to the death of her husband. XIII. A boy of seven had the obsessive thought that his father would die. He cried himself to sleep every night, saying that if papa died he would kill himself or go crazy. The boy was an only child, born nineteen years after the parents were married. He slept in the same room with his parents, often crawled into his mother's bed because he was afraid to sleep alone, caressed her and called her dearie. The parents coöperated intelligently and the boy got well. XIV. A man of twenty-six had been suffering for twelve years with doubts which compelled him to check up everything he did. He began to masturbate at the age of fourteen, just before the obsession set in, and had continued the practice until recently when he began going occasionally to prostitutes. He is very much attached to his mother and has no men or women friends, indeed he definitely refuses to go out with young men of his age. This man has an outspoken schizoid personality. XV. A high school girl of sixteen has

to think of rings on her fingers, of signatures and of people she likes and dislikes. She cannot touch her rings or look in the mirror because she must at once gaze at people's eyes. She must imagine thoughts opposite to those which come to her mind, and if people accidentally touch her she must touch other people and think of the ring at the same time. XVI. A spinster, sixty years of age, has been suffering with doubts all her life. As a child the question constantly recurred to her whether she would die. At twenty she began to have doubts about God. She did not get married because she was afraid that childbirth would kill her. At the age of thirty she had another period during which she doubted God, yet lived in terror of hell. Since then she had repeated episodes characterized by the same doubts, intense desire to believe, expiation in ritual, and fear of perdition. XVII. A cultured, intelligent, kindly old woman of seventy was practically paralyzed in her activity because of compulsive rituals in her home. She took hours to dress, kept her children minutes and even hours waiting outside the door until she went through a ritual before letting them in, she let the telephone ring without answering because a compulsive ceremonial kept her from it, walked in front of people in a definite way or back and forth before she would let them reach the table or take a seat, could not take a bath or comb her hair because of impossible ceremonials, and even had difficulty with eating on account of her compulsions. She had them all her life, practically since young girlhood, and they recurred at intervals only to disappear spontaneously. The last episode also cleared up to a very great extent. XVIII. A man of thirty had the compulsive thought to look at matches and pick up burnt ends. He was also compelled to think of glass, and, whenever he saw anybody touch it, thought he would get hurt. He used to get up in the middle of the night to look at his children's shoes and to see whether they contained glass. He was afraid of dirt, constantly looked at his fingers, and thought his obsessions would drive him to insanity.

Signs and Symptoms of Hysteria.—The general manifestations of hysteria are so numerous that it is almost impossible

to discuss them in detail without making the text encyclopedic. Nor is it necessary. Provided one accepts the theory of psychogenesis and realizes that there is hardly a sign or symptom of organic disease which hysteria cannot simulate, it is sufficient to describe briefly the more common and characteristic manifestations. The psychoneuroses constitute the largest group with which even the general practitioner has to deal, and hysteria is the most protean disease in the whole domain of medicine. While *monosymptomatic hysteria* (the continued dominance of the clinical picture by one sign or symptom) is not at all uncommon, by far the greatest number of cases present a great variety of manifestations which are kaleidoscopic in their nature. Without reiterating what has been said under Etiology and Classification, it may be stated that hysteria is characterized by mood or affect changes, by states of anxiety, by disturbances and alterations of character or personality, and by physical or somatic manifestations. Practically every case bears the imprint of all of them, though now one, now another predominates and lends color to the clinical picture. Although the mental manifestations are psychologically the more important, by far the most numerous are the somatic *conversion signs and symptoms*. These, as has been indicated before, generally represent low-level, physical manifestations which are the result of dissociation and repression in the unconscious of unpleasant or painful affects which cannot make their appearance in consciousness because of the original tabooed idea to which they were attached. In this sense every conversion symptom is psychologically conditioned and is conceived of as the disguised substitute of some unconscious wish; but at the same time is a compromise between instinctive cravings and the dictates of conscious behavior. It represents the result of the attempt at adjustment. This may be feeble, ineffectual, infantile, or impossible, but it is a purposive effort just the same. Every symptom, then, has a meaning, every manifestation is psychi-

cally determined. The symptom may be so bizarre, so distorted, apparently so meaningless as to defy direct interpretation, but in many instances probing beneath the surface can reveal both its significance and psychogenic origin. If either is impossible after thorough investigation the designation of conversion hysteria becomes untenable. Altogether the hysteric reaction is regarded as a flight from reality, or a "flight into sickness," and is assumed to be at the same time a "gain" for the individual. But whatever the psychologic explanation every hysteric is a sick person.

While the hysteric signs and symptoms may come and go suddenly and apparently inexplicably, persist for a long time unchanged, or rapidly go through numerous phases, they do not generally sprout forth in persons who have not previously shown some of the general characteristics of a hysteric personality. Therefore, one should always look with suspicion on hysteric manifestations in an adult or middle-aged person who has previously been well mentally, and rather look for corroborative evidence of disease whose organic nature will ultimately become apparent. But it should also be remembered that every individual, however well-adjusted, provided the external stress and consequent inner conflict are sufficiently strong, is capable of responding on occasion with neurotic symptoms. This is but a corollary of the statement that every hysteric manifestation arises in response to some conflict with reality and the pressing need of adjusting to it. But the roots of the neurosis can generally be traced to childhood or early life and so can the behavior and personality difficulties. One, therefore, finds, not infrequently, the manifestations of hysteria in children, though they more commonly come to the surface at puberty, in adolescence, and in early adult life; that is, on the numerous occasions when the individual finds it impossible to adjust to the difficulties of life. That the neuroses are more common in young women is a clinical fact whose explanation must be sought in their special psychosexual

organization and their peculiar and pressing need of adjustment to reality in a world of man-made morality. But analogous factors and situations hold true in the male, and the recognition of the prevalence of hysteria in man has long since dispelled the notion that the disease is the prerogative of women. The struggle for existence in which men are more strenuously engaged and the frequent holocausts of war to which men almost alone are exposed may furnish additional factors to account for increasing neuroses among them and to balance the scale between them and the more sheltered females.

If all that has been said on normal and abnormal mental mechanisms, on the general nature of the neuroses, and on the protean character of hysteria be correct, it may appear somewhat contradictory to lay emphasis on special neurotic types; nevertheless, bearing in mind the elasticity of the concept, one may speak of a *hysteric personality*. What characterizes this personality is the infantile reaction to life and the inability to adjust at the adult level of reality. The individual is hypersensitive, excessively irritable, self-centered though not altogether selfish, preoccupied with himself, impulsive and moody, and generally deficient in emotional control. He is enthusiastic or elated and depressed by turns, often has outbursts of crying, and sometimes of uncontrollable laughter. Like every child he craves attention and becomes sulky or querulous if he does not receive it. He is generally shy, easily frightened, afraid to be alone, and yet he would dominate the stage, sometimes in true histrionic fashion. Indeed there seems to be an unconscious histrionic quality to all the manifestations and a narcissistic coloring to some of the behavior. He is generally impatient and anxious, and not infrequently has acute attacks of anxiety. He over-emphasizes or exaggerates his complaints, keenly feels what he interprets as neglect, is inordinately ceremonious, and preoccupied with his bodily functions. He is affectionate and resentful at the same time (ambivalent), strongly attached

to his family, yet incapable of loving very deeply. He is often cruel to the very people he loves best, thereby exhibiting a sadistic trend alongside the more outspoken masochistic tendency. He injects his personality into everything and easily identifies himself with persons and things. He often lives the life of childish phantasy, loves to indulge in day dreams (*autistic thinking*), and easily imagines himself in heroic situations which he is neither able nor willing to fill. It is this childish helplessness and heroic posturing which used to be, and on occasion still is, regarded as charm in hysteric young women. Most characteristic is the extreme and abnormal suggestibility. Sexually the hysteric is apt to be immature. Despite the "passionate" feeling and marked auto-erotism, the male is often impotent or has ejaculatio precox and the female frigid and anesthetic; vaginal hyperesthesia (*vaginismus*) not infrequently accompanying the psychic anesthesia and interfering with normal sexual relations. Women, in particular, are apt to exhibit disgust for the sexual act despite their avowed longing for love. The make-believe tendency of the child sometimes shows itself in what is known as *pseudologia phantastica*, or in actual lying. The intelligence level of the hysteric is generally good, though hysteria may be associated with mental defectiveness. In short, what characterizes the hysteric personality is persistence of infantile trends and abnormal psychosexual development.

Not every hysteric, of course, shows all the above mental traits; nor does the occurrence of one or more of them in an individual make of him a maladjusted neurotic. But most characteristic of the hysteric personality, in addition to the mental traits just described, is the proneness to develop conversion signs and symptoms which make possible "flight into sickness" as a way out from conflict with reality. The flight may take place altogether at the psychologic level and result in pure mental symptoms ranging up to complete dissociation of personality: essentially the conversion phenomena consist

of subjective and objective sensory disturbances and disturbances in motility in the form of akinesias (paralyses) or hyperkinesias (excessive movement).

Among the *sensory conversion symptoms* pain is the most common and persistent. The *hysteric pains* may be mild or severe, "neuralgic, migrainous or rheumatic," and occur anywhere in the head, body, or limbs. The patient often speaks of them as "terrible," but generally shows a certain detachment, if not indifference, and sometimes a tell-tale smile breaks through at the very moment the suffering is described as most unbearable. Hysteric headache, on close inquiry, often turns out to mean a peculiar general or local pain and hyperesthesia of the scalp. The localized pain and tenderness, known as *clavus*, is apt to be rather severe and is often described as the sensation of a nail being driven into the head. The location generally is in temporal and parietal regions of the skull and its duration weeks or months on end. Pain in the back is another common complaint. Sometimes it is diffuse, at others localized in the spine alone or restricted to one spot in it. If severe it may be accompanied by rigidity of the muscles and curvature of the spine. The pain, rigidity and local tenderness may be severe enough to simulate disease of the vertebral column, particularly tuberculous spondylitis. Conversely, organic disease may, unless unusual care and diagnostic skill are exercised, be mistakenly regarded as hysteric in nature. The typical hysteric forward bending of the spine (posterior curvature or kyphosis) is known as *camptocormia*, and is sometimes observed following trifling injury to the spine. The condition may become so exaggerated in time as to amount to contracture, in which case the patient walks with the body bent forward almost to a right angle and the head turned upward. The pain may be limited to the tip of the spine, the coccyx, (*coccygodynia*), or to the breast (*mastodynia*) and appear in the form of neuralgia, or affect any part of a limb. The abdominal pains may simulate

every conceivable organic condition, from gastric or duodenal ulcer to cholecystitis, appendicitis, renal or vesical calculus, etc., and lead to both erroneous diagnoses and fruitless operations.

The hysteric pains in the limbs may be accompanied by peculiar *dysesthesias* and *paresthesias*. The former consist of peculiar subjective sensations of crawling, tickling or tingling in the absence of external stimuli; the latter, which are perverted responses, by the perception of similar sensations on light touch. *Hyperesthesia*, or undue sensitiveness to touch, is also a common symptom, the extreme tenderness being entirely out of proportion to the immediate stimulus. Localized hysteric tenderness has given rise to the conception of *hysterogenic zones*, which were formerly made use of either to elicit or cut short hysteric attacks. The local tender points are generally found in various regions of the spine, the breasts, epigastrium, iliac regions of the abdomen (ovarian zones), or the head. They are in all probability the result of either auto- or hetero-suggestion. It is possible that one phase of *Libman's sign* (exquisite tenderness or absence of pain on pressure applied to the tips of the mastoid bones) is a sign of hysteric hypersensitiveness. A peculiar dysesthesia of the tongue and mucous membrane (*glossodynia*) consists of a burning, itching pain and is generally found in edentulous women past the menopause. This is a stubborn condition, probably hypochondriacal in nature, frequently accompanied by fear of cancer. In such cases it is very important first to rule out pernicious anemia. *Acroparesthesia*, which consists of peculiar numb and tingling sensations in the limbs, more particularly in the hands, and is most annoying at night and on rising in the morning, occurs most commonly in women at the time of the climacterium. This condition is not altogether hysterical in nature but is probably due to some vasomotor or endocrine disturbances which are at present ill-understood. Hyperesthesia of the eyes sometimes shows itself in *photo-*

phobia, that is, fear of light, or unpleasant visual sensation in the presence of light. Dancing spots before the eyes and unpleasant subjective noises in the ears are also very common hysteric complaints. Obersteiner described a perverted sensation known as *allocheiria*, which consists of the perception of the sensation on one part of the body or limb when the corresponding part on the other side is touched. Some patients, probably always as the result of suggestion, perceive pain when touched by metals or other objects which convey temperature sensation.

Hysteric anesthetics, or loss of sensation, while not nearly so common as was once believed, occasionally occur. Diminution of sensation is more common. The anesthetics are not limited to regional peripheral or segmented neural distributions, but involve a limb, part of a limb (so-called glove and stocking type), half of the body and face, and the mucous membranes (nose, mouth, pharynx, rectum, vagina). They are frequently, but not always, due to suggestion on the part of the examiner; and it is not an uncommon experience to find or induce variations in the extent and degree of the anesthesia on different examinations or even in the course of the same examination. Peculiar to the hysterical anesthetics is the usual involvement of all forms of superficial and deep sensation without that dissociation which so often occurs in sensory disturbances caused by organic lesions of the nervous system. If the hysteric sensory loss happens to be limited to one half of the body it is generally found to extend exactly to the midline, a condition contrary to the cutaneous overlapping which makes organic hemianesthesia fall short of the midline. Similarly, psychogenic loss of sensation is attested by the hysteric perception of the tuning fork on one side of the sternum and not on the other, or only on the healthy side of the head and not the anesthetic—an evident impossibility in view of the normal conductivity of vibration. The loss of smell, taste and hearing which occurs at the same time with

hemianesthesia including the face is further evidence of the hysteric origin, seeing that special nerves subserve those special functions. On the other hand, despite the loss of sensation to even very deep pin prick, the psychogalvanometer may show deflection of the needle on painful stimulation. This would prove that the stimulus is perceived. It is noteworthy that the faradic brush may nevertheless be felt in hysteric anesthesia. Bilateral anesthesia (excepting the limbs) is very rare. Contrary to the course of organic sensory loss, the hysteric anesthesia often disappears as abruptly as it came, not infrequently as the result of auto- or hetero-suggestion. According to Babinski hysteric anesthesia is the result of suggestion on the part of the examining physician.

Case XIX.—G. G., a merchant, forty years of age, complained of a numb, “unnatural” feeling in the left leg and arm and the left side of the body; of a flushing sensation in the left side of the face; and heaviness in the left arm and leg. The history was that one day, four months before coming to the office, his left arm and leg suddenly became numb and the limbs heavy. The condition gradually grew worse despite medical attention, and the fear of paralysis finally brought him to the neurologist. He had always been nervous and irritable, suffered for years from gastro-intestinal disturbances and at one time from “renal colic,” neither of which was ever confirmed by X-ray or other examination. He is a married man and had to work hard to support not only his family, but some of his brothers and sisters, but particularly his mother to whom he was very much attached. A few months before the onset of his present difficulty his mother sustained a hemorrhage of the brain which resulted in paralysis of the left side of the body with total loss of sensation on that side. A complete neurological and general medical examination failed to reveal any organic disease. The assurance that he was not paralyzed nor likely to be, coupled with the positive suggestion that the numbness and heaviness will disappear, and the explanation that he had identified himself with his mother to

such an extent as to beget symptoms on the same side with her paralysis resulted in practically immediate recovery.

Hysteric anosmia, or loss of the sense of smell, is rare as an isolated symptom, but when it does occur affects the perception not only of odors but also of pungent substances which irritate the sensory fibres of the trigeminal nerve supplying the nasal mucous membrane. The hysteric may lose the sense of smell for certain substances only, or relish the offensive odor of valerian, asafetida, or excreta. Irregular contractions of the visual fields are the most common psychogenic *disturbances of vision*. Generally, one eye shows more contraction than the other, and sometimes the field of vision grows smaller as the perimetric examination is repeated, evidently in response to suggestion. Occasionally one observes a spiral or *helicoid contraction*, and in extreme instances the restriction is so great that tubular vision, as if peering through a keyhole, results. True *hysteric hemianopsia*, that is, blindness in half of the visual field of either eye, is very rare, though it has been described. Bilateral *hysteric amaurosis*, namely, complete blindness, is very rare, unilateral more common. Hysteric blindness is apt to come on suddenly after an emotional shock, slight trauma, or minor ocular affection, and after lasting minutes, hours, days, months, or even years, disappears quite as abruptly. Psychologically it would seem as if the patient would shut his eyes and actually refuse to see an acutely distressing or painful situation. One of my patients lost the vision in one eye immediately after her husband was brought home with a battered eye and the face covered with blood. She recovered completely two years after the accident. The hysteric amaurotic is not apt to collide with people or objects, as the blind person does, and the pupils react normally. In unilateral hysteric blindness one may be able to induce diplopia (double vision) with prisms. The way to test hysteric amaurosis is to blind the seeing eye with a powerful lens, cover the affected one with a

plain glass, then ask the patient to read. If he does, it is quite evident that the eye which is supposed to be blind is not. This test can also be employed in malingering. *Dyschromatopsia* and *achromatopsia*, which consist respectively of perversion and loss of color perception, are fairly rare. *Photophobia* and *blepharospasm* (blinking or persistent closure of the eyelids) frequently accompany hysteric affections of vision. What is known as *dysopsia algera* is painful vision. *Hysteric myopia* occasionally occurs in connection with spasms of pupillary accommodation, the nearsightedness in some instances amounting to ten or twenty diopters. *Monocular diplopia*, that is, seeing double with one eye, is manifestly a physical impossibility, except in dislocation or peculiar distortion of the lens, and is generally regarded as irrefutable evidence of hysteria. Finally, one may mention *micropsia*, in which objects appear very small, and *macropsia*, in which they seem unusually large. Both these conditions, however, may also occur in organic disease of the brain.

Hysteric paralysis has become a comparatively infrequent phenomenon in civil practice, but it does occur sufficiently often to confuse the unwary. The paralysis may be partial or complete, flaccid or spastic and accompanied by contractures. Generally it involves half of the body, both lower extremities, one limb or part of a limb, a function rather than a muscle or group of muscles innervated by certain nerves. The hysteric seems to make no effort to move the part; he is psychically indifferent to it. There is no atrophy, at least not for a very long time, no changes reflexes, and no reaction of degeneration. Pains occasionally accompany the paralysis. After a time contracture and some vasomotor changes may appear in the fingers and toes, hands and feet. The contractures are sometimes extreme, the limbs being in a state of hypertonia. The *hysteric hemiplegia* generally is flaccid, the patient dragging the leg rather than spastically circumducting it in walking, as is the case in organic hemiplegia. The face

and tongue generally escape and the platysma always does in psychogenic hemiplegia. Nevertheless, hysteric *glossolabial spasm* with deviation of the tongue may occur. *Hysteric pseudoptosis*, which is due to contraction of the orbicularis rather than paralysis of the levator, is characterized by absence of compensatory wrinkling of the forehead, such as occurs in organic paralysis. *Hoover's sign* may be used to differentiate between organic and psychogenic hemiplegia or paralysis of one lower extremity. If a patient, lying on his back, lifts up one leg, he unconsciously presses the heel of the other leg down. In organic paralysis this is accentuated on the healthy side in proportion as the patient makes every effort to raise the paralyzed limb. Not so in hysteria. The test, therefore, consists in placing the palms under the heels and registering the pressure.

Case XX.—A. A., fifty-two years of age, brush maker by occupation, had complete flaccid paralysis of the right upper extremity. The condition came on practically over night. Neurologic examination was entirely negative. The history was that when his son appeared before the draft board during the War, the father claimed exemption on the ground that the young man was the support of the family. The claim was disallowed for the reason that there was another son and the father himself was earning good wages. Soon after the son's conscription the patient developed the paralysis which obviously incapacitated him. The unconscious psychologic mechanism was very clear, because now that the working arm was useless and he could not earn his living the father really needed the support of his son, and thus "proved" his claim before the draft board. The patient began to recover after the armistice and was fully well when his son returned home.

Hysteric *astasia-abasia* is the inability to stand or walk despite the power to move the legs normally when lying or sitting. Children are said to be more commonly affected than adults. Except as war hysteria, and this occurred quite

frequently among soldiers of all nations, the condition is very rare. In *stasobasiphobia* the patient is seized with anxiety if he is made to walk, he clutches for help, and crumples up if his support is taken away. The hysteric gait is nondescript, bizarre, or pseudo-ataxic, the legs being flung in all directions. Some patients are able to crawl, swim, or run, but not walk. In some cases of hysteria the legs are dragged along. *Akinesia algera* is the inability to walk because of pain which cannot be accounted for. In hysteric paralysis the deep reflexes are generally lively and so are the superficial, except possibly in anesthetic areas. *Pseudoclonus* is sometimes present, but never the Babinski toe sign. *Incontinence* of urine, except purposive, is never present, but dysuria, or painful micturition, and *retention* are fairly common, and so is hysteric enuresis. The occasional retention of urine in hysterical young women demanding repeated catheterization probably serves the purpose of masturbation. *Pollakiuria*, or very frequent micturition of small quantities, is a very common hysteric symptom.

Hysteric aphonia probably is the most common form of psychogenic paralysis, either one or both vocal cords being affected. The hoarseness usually comes on suddenly, after some emotional shock, and often disappears quite as abruptly. The patient can only whisper, though he may sometimes be able to sing or cry out. The adductors are found to be weak on laryngoscopic examination, or the vocal cord completely paralyzed, and the larynx is anesthetic. The condition frequently recurs. *Hysteric mutism* is more rare. It differs from aphasia in that the patient understands everything that is said to him and can write or otherwise express himself perfectly, and from schizophrenic catatonic mutism in the absence of psychotic manifestations. Hysteric aphasia is a doubtful entity and bears little resemblance to true aphasia. *Hysteric stammering*, or other articulatory difficulties, also come on suddenly after some emotional trauma. Unlike

the true stammerer, whose speech disturbance generally begins in childhood, the hysteric is rather indifferent to his speech defect and does not show the emotional reaction of the stammerer to difficulties of enunciation. However, there is sufficient evidence to warrant the statement that there is a great psychic element to all stammering and that a psychogenic factor exists in every case, whatever other etiology may be involved.

Case XXI.—S. S., a married woman of thirty-nine, complained of attacks of hoarseness for the past five years. She suffered besides from fainting spells followed by vomiting, and also complained of dizziness, fits of crying, and thoughts of dying and becoming insane. The history is that at the age of twenty-two, at the time of her mother's death, she suddenly lost her voice only to regain it all at once five months later. Following her marriage and the birth of two children she had an ovariectomy performed with consequent scantiness of menstruation and loss of all sexual desire. Then she began to have fainting spells without auræ, falls, injuries, tonguebiting, incontinence, headache or somnolence; but they were always precipitated by some emotional upset and invariably followed by vomiting. In the past five years she began to have recurring attacks of hoarseness at the rate of one a week or one in two weeks, each lasting two to four days. They always came on acutely and disappeared as suddenly. The vocal cords were repeatedly found paralyzed during the attacks and perfectly normal during the free intervals. The headache, dizziness, and crying spells she had had for years, but the fear of death and insanity only came later. The patient was seen but once and no psychologic insight was gained into the condition, but there was no doubt as to the hysterical nature of the aphonia and none as to the fainting spells.

Reflex paralysis, described by Babinski and Froment, is not a true hysteric condition, but an organic palsy into which a considerable psychogenic factor has entered. The condition generally follows trauma to a limb, sometimes immediately,

occasionally only after a few weeks or months. The extent of the paralysis generally is out of proportion to the intensity of the trauma. The paralysis may be spastic or flaccid. Usually the affection is painful, the limb is colder than the healthy one, the skin and nails may show vasomotor and trophic changes, and the deep reflexes are apt to be lively. However, despite the evident signs of organic disease the paralysis is greater than the minimal injury is responsible for, or lingers on after recovery ought to have set in. There is, therefore, a marked psychogenic element even though the paralysis is not altogether hysteric as was originally thought.

Hysteric contractures, which involve various parts, particularly the hands and feet or even entire limbs, often develop in the course of psychogenic paralyses. They consist mainly of flexion of the fingers and toes and fixation at the larger joints, namely, the hips, knees, and elbows. Paraplegic contractures, torticollis, trismus, kyphosis, scoliosis, or lordosis also occur. Generally, attempt to overcome the contractures only increases them. After prolonged duration they may become permanent, but in the beginning they disappear under hypnosis or chloroform anesthesia, a fact which can be made use of in the diagnosis between organic and hysteric contractures. The latter may or may not cease at night. Ordinarily no organic signs accompany the hysteric contracture, but some atrophy of the muscles may appear after long duration and minor vasomotor changes during the course.

Among the *hysteric hyperkinesias* may be mentioned *tremors*, *tics*, *myoclonias* and various *spasms*. Tremors, which consist of regular or irregular oscillatory movements of various parts of the head and limbs, are essentially organic in nature, but not infrequently occur on a psychogenic basis. The latter are observed most commonly in the fingers or hands, in the eyelids and tongue, and sometimes in the head. The tremor is apt to be coarse rather than fine. A tic consists of a sudden,

abrupt, rapid, involuntary contraction of a muscle or group of functionally related muscles. The movement, such as blinking of the eye, shrug of the shoulder, nodding or turning of the head, twitching of the face, protrusion of the tongue, or gesture of an arm, follows a pattern, seems to embody an idea so that it may be regarded as a gesture, appears to be purposive, and to a certain extent is under volitional control. A spasm may be either a sudden, or a more or less prolonged, convulsive contraction of a muscle capable of producing movement, but it lacks the definiteness of pattern or purpose which characterizes tics, and is not subject even to momentary volitional control. Spasms of the eyelids (*blepharospasm*), of the face and occasionally of the limbs are the ones generally encountered. Whereas tics and other movements practically always disappear at night, during sleep, spasms as a rule do not. *Hysteric torticollis* is a particularly stubborn spasm of the sternocleidomastoid and other neck muscles. Myoclonus is a sudden, lightning-like, irregular, involuntary clonic twitch of a muscle or part of a muscle which does not necessarily produce movement of the part, for example, at a joint.

While there is hardly an abnormal involuntary movement which cannot be caused by psychogenic disorders, many movements definitely the result of disease of the brain may to all intents and purposes look hysterical in nature. But while it is true that organic dyskinesias may have a pattern or a certain stereotypy, be seemingly purposive, and even fluctuate under emotional conditions, they have not that ideational content which is assumed invariably to underlie the hysterical movements and do not serve an unconscious purpose, as do the psychogenic ones. Nor are the organic abnormal movements amenable to hypnotism or other forms of psychotherapy. Finally there is, as a rule, a history of some immediate or remote emotional upset to account for the onset of the hysteric dyskinesia, and skillful psychopathologic probing can very often bring to the surface underlying mental mechanisms.

Hysteric cough, *hiccough*, yawning, and *belching* are very common disorders. The cough is more or less throaty and partakes of the nature of a tic, while the hiccough, which is caused by spasms of the diaphragm, often expresses itself in crowing noises. *Globus hystericus*, which consists of the choking sensation of a "ball in the throat" or of "a lump traveling up and down the gullet," may be classed among the spasms. *Esophagospasm*, with hysteric dysphagia, namely difficulty in swallowing, and pylorospasm also belong to this group, but in those instances it is imperative to rule out organic disease, more particularly malignancy, of the upper digestive tract. *Globus hystericus*, like many other tics and spasms, is conceived as the somatic expression or actual gratification of unconscious wishes.

Visceral conversion hysteric phenomena are extremely common. Hysteric *anorexia*, or loss of appetite, is the most frequent complaint encountered. The loss of appetite generally is not accompanied by corresponding loss of weight, but it may be, and on occasion is very severe. The *anorexia* and *hysteric vomiting* may be so persistent as to result in emaciation and inanition. On the other hand there may be severe vomiting with retention of normal appetite and no evident loss of weight. Occasionally there is excessive appetite, or *boulimia*, with gorging followed by vomiting. Young children, frequently to escape school, frighten or punish parents or otherwise escape unpleasant tasks, will resort to vomiting, especially before or after breakfast. Occasionally the vomiting represents a "pregnancy" phantasy, or the repetition of a conditioned reflex originally engendered by disgust. Some cases of "pernicious" vomiting of pregnancy, which may even justify emptying the uterus, are definitely hysteric in nature. The hysteric dysphagia and *globus hystericus*, which are interpreted as esophageal spasms, are often associated with vomiting and very likely also represent repressed phantasies. Hysteric fasting is but

another form of anorexia nervosa. Hysteric *meteorism*, or abdominal distension with gas, most commonly occurs in females. In women who had no children and are approaching the menopause the abdominal distension may progress apace and simulate pregnancy (*pseudocyesis*), including amenorrhea. This obviously represents the unconscious fulfillment of a wish before the onset of the menopause makes it utterly impossible. The tragicomedy may be kept up for months, "the mountain going into labor and giving birth to a mouse."

Case XXII.—L. S., a little girl of eight, was brought to the office with the complaint that she had loss of appetite, vomiting spells in the morning, especially if forced to eat breakfast, pains in the stomach, and twitching of the mouth; also that she bit her nails and was generally very nervous. The condition had lasted a year and a half, beginning at the time when the child entered school. It was first noticed that she walked peculiarly and that she would sit and rock a great deal in a chair. Then she began to complain of pain in the stomach, which the child discovered was relieved by lying flat on her face. The suspicion of appendicitis was entertained, and the child began to dread an operation. The history was that six months after the birth of the little girl and the death of her mother the father remarried a woman some fifteen or twenty years his junior. The second wife had a little girl by a former marriage, older than the patient, on whom she showered, in invidious fashion, a great deal of affection. The patient did not know at first that she had a stepmother, but as she grew up and her older brother and sisters, whom the father kept at boarding school, came home she learned that her real mother was dead. She kept the secret to herself, but began to fear the stepmother who was unaware that the child had knowledge of the facts. The stepmother, unconsciously or otherwise, gave all her affection to her own child, but as a show of equal kindness to the little patient, who sensed the difference all the while, she smothered her with oversolicitousness. Thus

she forced the child to wear clothes she did not like on the ground that health demanded them, compelled her to eat all kinds of food the child did not relish in order to strengthen her, made her stay in bed when the patient would rather have played, also on the ground that frail health demanded it. The father, too, sensed all this, though he had no proof, and naturally showed more than ordinary affection to the little girl who, in turn, was much attached to him. This engendered hostility on the part of the stepmother to the father, and it promptly registered on the child. As the father was away traveling weeks at a time the child dared not openly antagonize the mother and purposely kept to herself the secret knowledge that her real mother was dead. As time went on she became more and more acutely aware of the hostility between the parents, particularly after she once overheard her father speak of divorce to her oldest sister at a time when the latter came home from the boarding school. All this came to the surface when the child was alone with the examiner and after she was repeatedly assured that her mother will not be angry. The child dared not speak her mind to the mother in whose presence she protested, too much, it seemed, that she loved her. The psychology of the anorexia and vomiting became very clear to the father, but the mother protested against the interpretation. The father was advised to take the child out of the house, and the little girl recovered.

Case XXIII.—N. G., a bank clerk, twenty-seven years of age, complained of spells of nausea and gagging and a desire to go to the toilet immediately after eating. The condition had lasted more than five years and was gradually getting worse. The first time he became nauseated and had gagging happened in a restaurant, when he took a girl out after a dance. Soon he had the same sensation when he took any young lady to the theatre, a social affair, or the restaurant, and later whenever he went to a restaurant to eat by himself. More recently, merely going to visit a young lady or entering a restaurant brought on the nausea, so that he was compelled to give up all his girl friends and his sociability with men, despite his avowal that he craved both. Diarrhea, too,

frequently overtook him if he persisted in eating at the restaurant or forced himself to be in the company of girls. On two occasions he was overwhelmed before he could reach the toilet. He had become totally impotent in the past three years, but as a matter of fact rarely had intercourse before that. He admitted masturbation. He was inordinately attached to his mother, who was divorced from his father, and he gave her the major portion of his earnings. He had an intense feeling of inferiority. He recalled that, as a boy of five years, while in the theatre with his mother, he was nauseated by the sight of some performing seals. The memory of that event often recurred to him. Since childhood and up to the present he was in the habit of sucking his thumb on going to sleep. There was no doubt of the psychogenesis of the symptoms, but the patient removed to another city before any insight could be gained into his condition.

Paroxysmal tachycardia, which consists of periods of apparently unmotivated acceleration of the pulse rate accompanied by palpitation and sometimes shortness of breath, lasting minutes or hours, may be an hysteric phenomenon. When precordial distress is associated with the tachycardia the picture becomes one of pseudo-angina pectoris. Hysteric *tachypnea* consists of paroxysms of rapid breathing without air hunger or cyanosis. The pulse in such cases is normal. The respiratory rate may rise very high and the paroxysm last for hours. I have seen one young woman breathe at the rate of one hundred and twenty times per minute without any apparent distress on her part. This condition should be carefully distinguished from the similar respiratory anomalies occurring in the course of chronic encephalitis. The loud, hacking, or barking hysteric cough has already been alluded to. Hysteric sneezing or yawning may also occur occasionally. *Aërophagy*, or swallowing of air, and subsequent noisy eructations, is also not uncommon. Abdominal noises, or *borborygmi*, and startling expulsions of flatus may be hysteric symptoms. Hysteric *constipation* is perhaps the most com-

mon of all gastro-intestinal symptoms and often leads to the self-gratifying habit of daily enemas to which neurotics take so readily. Hysterical *diarrhea* may be an independent symptom, sometimes alternating with constipation, or the result of "nervous" mucous colitis. Generally, the diarrhea follows emotional upsets or becomes a conditioned reflex response to certain foodstuffs, and is unaccompanied by other evidence of intestinal disease. The ill-defined vagotonic syndrome may account for some of those diarrheas. *Oliguria*, or scanty urination, and *anuria*, or suppression of urination, are definite organic conditions and cannot be regarded as true hysterical symptoms. When they occur in hysterics they are generally the result of attempts to deceive the physician, the patients in some instances secretly passing water then denying the fact. *Hysterical fever* is a doubtful entity, even though it has been described by reliable observers. Usually it is due to physical complications which cannot be readily discovered. In the majority of cases the rise of temperature is found to be the result of an act of deceit or treachery on the part of the patient who will hold the thermometer near a hot-water bottle or rub the mercury bulb with the fingers.

Case XXIV.—E. V., a school boy of thirteen, was brought with the complaint that he had spells of rapid breathing, puffing, and blowing, that he screamed at times, and used vicious language. He had been well and bright up to two years before coming to the office, when, following the death of somebody he knew, he began to suffer from insomnia at night and sleepiness by day. He had no fever or any signs pointing to encephalitis. Following the onset of insomnia he began to have the paroxysms of rapid breathing, blowing and puffing, which lasted a few minutes at a time and occurred mainly at night. He became irritable and cranky, using abusive language to his mother whenever he was crossed. He discontinued his school work, so that by the time I first saw him he was retarded two years. The boy was an only child who lived with his mother, the father being separated from her.

She was with the boy most of the day and slept in the same bed with him. For a short time the patient went to a radical country school with boys and girls much older than himself and he saw them bathing nude together. On questioning the boy he stated that he got pleasure from the spells, that they came on when he wanted to get even with boys who teased him or with his mother whenever she annoyed him, and could stop them if he wanted to. He related how boys who practised masturbation collectively tried to teach him how to do it, but he ran away from them. The same boys also told him "dirty things" about girls, which he did not like, but he could not help thinking of them all the same. On several occasions the boys played with girls and he even saw them touch their genitals. He thought of the girls all the time, particularly of one whom he loved. Although the mother was an intelligent and coöperative woman it was difficult to break the intense attachment between her and the boy, all the more as her own love life had been shattered. The boy was finally taken out of the home and placed in a private school under the guidance of competent teachers. He recovered completely.

Case XXV.—F. P., a married woman of thirty-two, complained of loss of appetite, a lump in the throat, diarrhea-headache, weakness, dizziness and tendency to veer to one side, inability to relax, fear of herself and dread of being left alone, fear of death, insanity and sanatoria, loss of interest or desire to do anything, and loss of weight. The present symptoms came on six months before, following an attack of acute anxiety while she was at a concert. Since that time she feared going to the theatre or sitting in a center seat. As a matter of fact she admitted she had been nervous since the age of fourteen or sixteen, soon after she began menstruating, and that she had "spells" of diarrhea and the choking feeling of a lump in the throat on and off all those years. She had been a pampered but sociable girl, cared little for men, was given to phantasy, pursued music and literature in dilettante fashion, and traveled a good deal at home and abroad among make-believe people. She finally married at the age of twenty-five a good but matter-of-fact man who had no inter-

ests to match her own. She abhorred intercourse, was disgusted by the sexual act, and only yielded because she had to on a few occasions after marriage. She became pregnant soon afterward and has not had any relations with her husband since that time. She "craved affection" and wondered why her husband used to leave her alone all the time. She was "terribly fond" of her little boy. At the time of coming to me she lived with her parents, away from her husband. When the barrenness and impossibility of her love life were pointed out to her and the merest allusions to psychologic mechanisms made she revolted a great deal, and when the question was put as to whether she really wanted to get well she confessed that she wanted to have things in her own way and that she could not and would not change herself to suit others. She hinted at a platonic affair with an artist who, from the description, was evidently feminine in his make-up. She never returned for treatment.

Among the *vasomotor disturbances* may be mentioned blanching of the skin and blushing. Redness of the face, neck, and chest may become a very distressing manifestation. I have seen it in a young girl who could not go with boys, to the theatre, or social circles without her face and neck turning fiery red. Cyanosis or edema of hysterically paralyzed and contractured limbs may occasionally be observed; but one should be on one's guard against self-inflicted wounds and the tying of bandages to induce edema purposely. Hysterics, like malingerers, sometimes mutilate themselves superficially to gain specific ends. Actual self mutilation is a sign rather of psychoses, though neurotic fanatics have been known to inflict serious injury on themselves in moments of religious frenzy. *Dermographia*, though a definite organic sign, is rather more common among hysterics than normals, and so are *ecchymoses*. Both have been made use of by fanatic hysterical subjects and exploited by canny persons in the interests of religious fervor or fraud. *Urticaria factitia* is also self-inflicted and does not itch as true hives do. Sialor-

rhea and lacrymation are seldom met with in hysteria. Anesthetic limbs of hysterics and those showing vasomotor spasms may not bleed on pricking with a pin. Rectal and vaginal pruritus are not uncommon symptoms. The latter often represent unconscious masturbatory acts, particularly in older women and during or following the menopause. Obviously diabetes and local organic conditions must be ruled out before such a conclusion is reached.

Hysteric convulsions, or the *grande crise hysterique* of Charcot, are extremely rare. I have seen but two genuine instances. Even so, one does not often observe typical attacks; but when they do occur they are very characteristic and quite spectacular. Charcot described them as follows: At first there are prodromata which consist of general irritability or excitability, a state of anxiety, and the globus hystericus. Then there is the immediate "aura" characterized by the sensation of a "ball" or lump rising from the pit of the stomach to the throat and causing choking, by palpitation, increasing anxiety, intense emotional reaction, restlessness, and a host of other hysteric symptoms. Occasionally there are no prodromata and the grande crise sets in without warning, or the first two phases pass off without merging into the following one; however the third stage is characterized by the convulsion. The patient suddenly falls to the ground or on a bed, generally without hurting herself; the whole body becomes rigid, arched backward (opisthotonic), the head is pulled back, the jaws are tightly closed, the limbs extended, the hands closed. The convulsion is tonic, the patient does not breathe, and she gets blue in the face. Then the tonic spasm ceases, breathing is resumed, and the cyanosis disappears. There is no tongue-biting or bloody frothing, though the patient may bite the lips, and there is no incontinence. Occasionally there may be purposive urination. The tonic convulsion is followed by clonic spasms, or, rather, irregular jerkings, contortions and thrashing about with the

limbs. There is grimacing, fighting, rolling, crying, howling, laughing, or snapping. The patient may assume the so-called plastic passionate attitudes in which fear, anger, devotion, or ecstasy are portrayed. Or there may be the *attitude passionnelle* in which sexual emotions are expressed or the actual act of coitus imitated. The patient may bark like a dog or imitate the actions of other animals. The attack lasts from a few minutes to half an hour, may be repeated several times, or pass into what is known as the *status hystericus*. The pupils all the while react to light, the patient is not deeply unconscious, attempt to open the eyes is met with resistance, the attack is not followed by coma, the Babinski toe sign, somnolence, or headache, and the fit can often be stopped short by a sharp stimulus, such as a faradic current, or by the injection of apomorphine. As a matter of fact, besides being very rare and the result of auto- or heterosuggestion or the desire to be histrionic before an audience, the hysteric fits do not always present the consistent and interesting picture so vividly described by Charcot.

Allusion has frequently been made to the view that repression and unconscious dissociation underlie practically every sign and symptom of hysteria; but there are occasions when this splitting is so profound as to affect character and alter the whole personality and behavior of the individual. Unconscious conflict over some painful situation obviously underlies all forms of dissociation, but the reaction seems to be more acute in the case of *dissociation of personality*. Whereas sudden blindness, paralysis or mutism represent dissociation at the somatic level, gross hysterical personality changes involve higher psychic strata. Hypnotism is conceived of as an artificial splitting of the personality, hence correctly regarded as an induced hysterical state. Conversely the various manifestations of dissociated personality may be regarded as spontaneous hypnoidal hysteric states. Among the simplest may be mentioned *automatisms* which are

occasionally observed after a hysterical fit, arise spontaneously, or are the result of post-hypnotic suggestion. The automatism is a dissociated but coördinated, purposive motor activity which persists during waking hours. The individual performs actions which cannot be distinguished from the normal, except that he is utterly unconscious of them. *Automatic writing* falls into this category. Whether it be in a trance or during the waking state, the hand moves spontaneously as if guided by another personality. Sometimes the individual knows that the hand is moving, at others he is not aware of it. At times the hand seems to be anesthetic. In any case old, buried thoughts, forgotten memories, foreign languages acquired early and lost later in life, or imaginary conversations are written down to the surprise of the patient as well as the examiner. The capacity for automatic writing may be developed in susceptible individuals, a well-known fact which spiritualistic mediums have capitalized to their own advantage among gullible persons.

Among the more or less simple forms of hysterical dissociation are the partial or complete *amnesias* which revolve about certain people or events. The simplest of all is the forgetting of names of persons and things which had unpleasant associations. True hysterical amnesias may embrace events of whole days, weeks or months and even years. In some instances the patient remembers everything up to a certain date, then there is a hiatus in which memory of all incidents is blotted out, and then again normal recollections. This is known as *lacunar* or *circumscribed amnesia*. By *anterograde amnesia* is understood the loss of memory for events which have occurred since the onset of the disease, and by *retrograde amnesia* loss of memory for those events which occurred before that period. The designations of verbal, auditory, or visual amnesia are incorrect, as they refer particularly to aphasia which is the result of organic disease of the brain, and only lead to confusion if used to denote psychogenic states.

There is a condition known as *tropical amnesia* or *coast memory*, which consists of loss of memory occurring among white men living in tropical countries, and is said to be especially prevalent on the West Coast of Africa. I do not know whether this is hysterical.

Case XXVI.—S. S., a school teacher, twenty-three years of age, suffered from total amnesia for a period of about one year and a half. Following the death of her father from heart disease several years before, she began to complain of precordial distress and other vague symptoms. Then her sister died, also of heart disease, and the patient began to manifest definite neurotic traits. Meanwhile she had been teaching in school. About a year and a half following the death of her sister her mother died. It was then that her amnesia set in and covered the period between the death of the sister and that of the mother. I saw her at the time of the circumscribed amnesia. She remembered everything up to the death of her sister but nothing which followed. She was unaware that her mother and sister were dead, did not recall that she was being treated by a physician all that time, although she knew him well and recalled every visit she made to him before the onset of amnesia, was astonished to learn that she underwent an operation in the interim, and insisted that her mother was in Europe. Compelled by her illness to give up teaching she yet went to the school principal begging to be given back her class and not realizing that she had not been teaching for three terms. One day she bought a steamship ticket to go to Europe and would have made the trip had not the family learned by chance of her intended voyage to see her mother whom she imagined to be living in Vienna. Indeed she was writing letters to her and wondering why she got no replies. During the consultation in the office she seemed perplexed by everything, denied knowledge of facts which her family physician confronted her with, and was curious to know why the examiner was interested in her at all, seeing that there was nothing wrong with her. She subsequently bought a railroad ticket to go to a sister in California and after being stopped once

she succeeded in getting away. She stayed there for some time and finally returned to New York. One day she telephoned to ask whether I was the neurologist who saw her before going to California. She had been told that she had visited my office, but had no recollection of the fact. She made several appointments which she did not keep, and the family physician informed me that she repeatedly did the same thing to him. I have been informed that she has recovered the memory of death of her mother and sister and has gone over into a state of depression.

Case XXVII.—Another instance of amnesia in one of my patients is that of a young salesman whom I had under my care for several years because of various neurotic complaints for which he consulted me from time to time. One morning, shortly after the death of his father, he left his place of business with a sample case to see an out-of-town buyer in a hotel. He promised to return within an hour but was not seen or heard from the whole day. At six o'clock in the evening of the same day he woke up, apparently from sleep, to find himself lying on the grass in front of a bench in one of the city parks. He did not recall how he got there. He had his sample case with him, but had not been to see the buyer. He was not hungry, so he inferred that he must have eaten. In fact he knew that he spent money since he had a dollar bill with him when he started out in the morning and found only small change in his pocket. Evidently the amnesic condition was in the nature of a fugue. He has since had two similar episodes.

Hysteric catalepsy is a variety of psychogenic fit in which the patient suddenly becomes motionless, speechless and rigid in all limbs. He is not unconscious, but continues in a dreamy, twilight state while the catalepsy lasts. The limbs are in the state known as *flexibilitas cerea* and remain indefinitely fixed in any position in which they are passively placed. All sensation, excepting corneal, is lost and the reflexes are abolished. Hysteric catalepsy may resemble, and must be distinguished from, the catatonic rigidity which not infre-

quently occurs in certain types of dementia precox. *Hysteric lethargy* or *trance*, also known as *narcolepsy*, is a condition simulating deep sleep, with this difference, that the patient cannot be roused from it by ordinary means. It resembles the hypnotically induced lethargic state, indeed it is a spontaneous autohypnotic condition. The hysteric trance may come suddenly or gradually, following auto- or heterosuggestion, last anywhere from a few days to as many months, and end quite abruptly with complete amnesia for the whole episode. During the trance the muscles are in a state of relaxation, the pulse and respiration are very much slowed and barely perceptible, anesthesia of the body is complete, and the reflexes are lost. Usually the patient can be made to swallow food. Sometimes this cannot be done, but instances have been reported where the individual, who is "dead" to all intents and purposes by day, will automatically stretch out for food and take it at night if it is left by his bedside. The condition actually simulates death, but there is little danger of accidental burial alive, although such cases have been reported and used to be favorite themes for novelists. The authenticated self-induced trances of Indian fakirs are hysteric lethargic states. Very marked schizophrenic catatonic reactions may simulate the hysteric trance, but aside from the fact that there is apt to be rigidity and not flaccidity, the psychotic background is sufficient to distinguish between the two conditions. *Mediums*, who make such deep appeal to the credulous, gullible, and supernaturally-minded, represent typical trance personalities.

Somnambulism is a hysteric automatism, a dissociated hallucinatory or delirious state, in which the individual carries out purposive acts without being aware of them either at the time or on awakening. It consists of a splitting of the personality of short duration. Janet considered the somnambulistic act as the most characteristic symptom of hysteria, but this would seem a rather exaggerated conception. Many hysterics never have somnambulism; conversely somnambulism is not

infrequent in children who do not grow up to become hysterics. Patients have been known to get hurt during these nocturnal expeditions. One of my patients sustained a fracture of the femur during one of his walks, and when he was picked up in the back yard that night had no idea how he got there. The popular notion that a person must be allowed to go through his automatisms without being aroused from his somnambulism lest he be harmed is rooted in superstition rather than scientific psychology.

Hysteric fugues, or ambulatory automatisms, are prolonged states of somnambulism which occur by day. In fact the fugue may last days and weeks or longer. It represents, so to speak, a flight of phantasy, a day-dreaming adventure. In essence it is a sudden dissociation following some emotional "shock," an escape from intolerable but repressed situations. While in this state the individual may make long trips to strange places and "wake up" to wonder how he got there. He may even temporarily take up a new occupation or follow interests which are altogether alien to his natural character or station in life. The patient spoken of as Case XXVII illustrated a typical fugue. I knew a dental student who was in the habit of making long trips without rhyme or reason, once going as far as Chicago. On one occasion he traveled to Boston, there fell in with a young lady whom he knew during his college days, married her after drinking a great deal, and promptly left her when the fugue was over.

Dual or alternating personality represents a profound state of dissociation of long duration. In this condition there is absolute splitting of character and the whole personality. The individual, so to speak, breaks with himself and his past, wanders away, does not know who he is, assumes an entirely different character, and generally also a name, lives with strangers, and leads a new life until he suddenly returns to the state in which he was at the time the splitting of the personality took place. There are literally two or more

personalities with different states of consciousness. Occasionally the individual is in a state of demoralization, not knowing his name or who he is, the whole memory being blank. The dissociation may last months or years and recur from time to time. Where there are two alternating personalities the normal is known as the primary and the new one as the secondary. In his primary personality the individual is not aware of, nor can he recall, the actions of the secondary personality, although they can be brought out in hypnosis. As a rule the secondary personality is equally unaware of the life of the primary; that is, the *amnesia is reciprocal*. Sometimes there is gradual merging of the memories of the two personalities. A number of classical cases have been recorded in the literature, among which may be mentioned the case of Mary Reynolds reported by William James, that of the Rev. Thomas Hannah by Sidis and Goodhart, of Leonie by Pierre Janet, of Sally Beauchamp and Doris Fisher by Morton Prince and of Felida X. and Marcelline. In one of those cases a modest and virtuous girl became pregnant and gave birth to a child in her second personality, never becoming aware of the fact in her primary state. In rare instances there are more than two alternating personalities, that is, *multiple personalities*. In psychoanalytic terms the dissociation obviously represents a regression to an unconscious phantasy. The fictitious case of Dr. Jekyll and Mr. Hyde is based on sound psychopathology but treated with considerable literary and dramatic license.

Case XXVIII.—J. Z., milliner, twenty-one years of age, complained of somnambulism, of periods of loss of memory, spells of momentary blindness, sleeplessness and pains in the back of the head. She had been a sleep-walker as a child, and from time to time had such episodes even when she grew up. She married at the age of seventeen, came to New York to live with her husband, and divorced him within eighteen months. She was frigid sexually. She went to work, drifted

around a great deal, and finally became addicted to morphine. Meanwhile there was a recurrence of her somnambulistic episodes, especially when she went to visit her folks in the country. Six months before coming to the office the somnambulism stopped and she began to have brief periods of amnesia during the day, which gradually lengthened to hours and in the past few months to periods lasting two or three days. As soon as the change of personality would come over her she would stop in the midst of anything she might be doing at the time and when she came out of the amnestic state she would try to resume exactly where she left off. During those periods she would communicate with people by telephone, write letters, take walks or go on errands, without remembering subsequently what she had done. She would make appointments with people in her secondary state and not keep them on return to the primary one, she did things which she afterwards denied having done, she failed to recognize friends during the period of amnesia, and on occasion produced automatic writing. The patient evinced no desire to get well, ostensibly came to the office to get relief for her headache and insomnia, and after denying at first that she was addicted to morphine said that she would like to be rid of her habit. As a matter of fact she preferred the indulgence to detoxication, and continued to drift until I finally lost track of her.

Hypnagogic hallucinations, though commonly regarded as hysteric manifestations, have also been described in otherwise normal individuals. They consist of momentary flashes of scenes embodying events which may represent fact or phantasy, and occur in the twilight state just as the person is about to go off to sleep. The individual may even be aware at the time of the unreality of the hallucinatory experience and yet continue in the hypnagogic state. The question of *hysteric psychoses* does not properly belong here. It is doubtful whether one may speak at all of such an entity. In a measure the whole term is a misnomer, both clinically and psychologically, and is as untenable as the concept of hystero-

epilepsy. There is such a thing as hysterical depression, but, again, it is a question whether it, too, or even simple motivated depression, really is not part of the manic depressive state. However, there are borderline cases which partake both of hysteria and psychosis and it is to these cases, wrongly as I believe, that the term is applied. One may, however, mention the *Ganser type* which goes by that name. This consists of a hysteric twilight state in which the patient becomes dull, stupid, confused, and indifferent to his surroundings. The symptom-complex is met with in prisoners, and generally clears up immediately freedom is regained. The consensus of opinion is that it is not a form of malingering.

Psychic Impotence, which refers essentially to the male, though it has its counterpart in the *frigidity* of the female, may be briefly considered here. Distinction should be made between temporary, relative, partial, total, and permanent impotence. Normally there is impotence lasting for minutes, hours, or, very rarely, even days after satisfactory intercourse. So, too, except in young and unusually potent individuals, it depends on time, place and person and the state of one's physical health. A man may be perfectly potent with the woman he loves, or with his wife, and not with other women; he may be able to perform the act with a young, beautiful and stimulating partner and not with one whose charms have waned, or an oldish and slatternly woman; he may fail in the act with his wife, especially years after marriage, and show vigor with more seductive females; he may be impotent with a prostitute and perfectly normal with loving mates; and, conversely, men have been known to be vigorous with prostitutes and not with modest women. Fear of detection, disgust of any kind, aversion, overanxiety, or excessive desire, fear of impotence, prolonged abstinence, and frigidity, vaginismus, or resistance of the partner, all may lead to temporary or partial impotence. Frigidity in women, while it is a form of psychic impotence, differs from that of the male, in that it

does not interfere with coitus because of the passivity of the female. Obviously total impotence, or even partial, such as ejaculatio precox, makes the act impossible or otherwise frustrates it. Whereas frigid women do marry (though they should not) and have relations, and bear children, the impotent male is helpless; hence the reason why in a great measure the problem is so much more difficult with men. Many women who are not frigid are yet psychically impotent in that they do not have, and in some instances do not crave, orgasm. Psychic impotence occasionally sets in with advancing age and in some instances is accompanied by excessive desire. Psychic impotence may also exist with normal *facultas coeundi*. Such individuals can have erection and intercourse but no orgasm. This may be an early sign of locomotor ataxia.

Essentially both impotence and frigidity are abnormal and, in the main, neurotic manifestations, especially of hysteria. Neurasthenics and other chronic masturbators are generally impotent, some partially, others totally. Psychic impotence is a common symptom of depression, or acute neurosis, just as excessive desire may occur in manic states. Schizophrenics and others who have paranoid projection ideas generally are impotent psychically. Perverts usually are. The frank homosexual may be impotent only with women, although some can have coitus with both sexes. The fetichist, sadist, and masochist are potent only under conditions providing special stimuli. But the most important causes of psychic impotence and frigidity undoubtedly are unconscious factors. These psychoanalysis regards as unconscious homosexuality, derived from too intense father and mother identification. And yet, the compulsive neurotic who is an unconscious homosexual, is not impotent as a rule, while the hysteric very often is. However, it is notorious that sons excessively devoted to their mothers make poor husbands, and not a few actually are impotent. To a lesser extent the same holds true of the emotionally-tied daughter.

Occupational neuroses generally represent hysteric conversion phenomena, in which the patient cannot perform complicated acts learned by use despite the fact that the muscles and their innervations are normal and other voluntary activity is possible. Thus a person may be able to use all his fingers and thumbs perfectly well and yet be unable to write; another may very well pucker his lips, whistle, blow, sip, etc., and yet not have the ability to play the flute though he was previously expert at it; still another may go through all sorts of skillful movements with his fingers and yet not be able to play the piano or violin; and so forth. In neurologic terms it is a case of apraxia without evident brain lesion. *Writer's cramp* is the most common occupation neurosis. In that case the individual gradually develops difficulty in writing, tires easily, and ultimately cannot guide the pen even to write single letters. When that happens he is compelled to make use of the other hand, but not infrequently that too loses the power of writing. Many such patients take to typewriting, which they can do very well. Anxiety generally accompanies the condition. Other hysteric phenomena, such as phobias, tremors and tics, and compulsions may also be present. Sometimes a slight trauma is the starting point and the erroneous diagnosis of occupation neuritis is made. More seldom the thumb and index finger may appear spastic. The condition is extremely stubborn and often occurs in "neuropathic" individuals. It is apt to recur. It should be borne in mind that what passes for writer's cramp, especially in young persons, may be the beginning of dystonia musculorum deformans or the forerunner of another organic neurologic condition. Occupational neuroses are also observed in piano, violin, flute and cello players, in telegraphers, typists, seamstresses, watchmakers, milkers, blacksmiths, tailors, etc. The muscles affected are those which are especially used in the particular occupation, thus: the lips in flute players, the thumbs in tailors, the orbicularis palpebrarum in watchmakers, the

calves in dancers, the upper arm muscles in blacksmiths, etc. These forms of occupational neuroses are less stubborn than writers' cramp and yield more readily to rest and psychotherapy.

Case XXIX.—B. M., a pianist, forty years of age, complained of pain in the right ring finger, inability to extend it after bending it, and numbness of both hands and arms. He was afraid that his hand was becoming paralyzed. The numb feeling of which he complained had come on two years before. The pain in the finger set in four months ago. Then he began to have difficulty in extending the finger whenever he bent it, so that he had to straighten it out with the other hand. This gradually interfered with his playing, finally compelling him to give up his occupation. The condition was much aggravated by worry and excitement. The history was that he had an excellent voice, studied at the Paris conservatory, sang in operas at Milan, but when he returned to America failed in his musical career and perforce became a pianist. Though he was a skillful player he felt that he had come down in life. He was married, but his wife suffered from asthma, which "ruined" his love life. In addition he was in considerable financial difficulties. Despite physio- and psychotherapy extending over a period of months the condition did not improve.

Case XXX.—I. F., an unmarried woman of thirty-two, complained of inability to write with the right hand and difficulty in writing with the left. The condition in the right hand began in 1915. At that time she was a student at college. Just before graduating her right hand "became foolish," she lost the power of writing with it, and had to learn how to write with the left hand. She ultimately got her degree. Following graduation she worked on and off at various social and clerical positions, but could not make a success of her work because of her difficulty, though she learned to typewrite well. In 1925 she returned to college for her master's degree, but before taking the examination in the Spring the left hand went back on her and then she couldn't write at all. She was a

very sensitive and not very sociable girl, who made little contact with men and had no sex outlet, much attached to her mother, and not so close to her father who was a cold, conservative man. The patient was analyzed for six months and it appeared certain that the difficulties with the hands were hysteric conversion phenomena. There seemed to be intense unconscious attachment to the mother who was left-handed, and the interpretation was that the loss of power in the right hand was an identification mechanism, at the same time that it was an unconscious punishment for masturbation with that hand. The onset of the difficulty each time that she was about to take final examinations for a degree which would prepare her for a career fitted in well with the psychogenic explanation that she wanted unconsciously to escape the need of relying upon herself, and her whole infantile reaction to life only confirmed that view. Despite the prolonged analysis and the bringing to the surface of mental mechanisms which confirmed beyond a doubt the hysteric nature of the patient, she failed to improve and was discharged from treatment. She returned in May, 1926 with the complaint that, beginning in March, the fingers of the left hand began to wiggle spontaneously, that the hand and arm moved involuntarily, that she had difficulty in using a knife and fork, and that she could not hold a cup without spilling its contents. She related that she had the "flu" in February of the same year and that she felt drowsy and sleepy for some time after the fever subsided. The suspicion of encephalitis was at once entertained but physical examination failed to confirm it. However, the abnormal movements were definitely athetoid and dystonic in character and there was not the slightest doubt of their organic nature. The right hand, too, began to show similar abnormal involuntary movements. The question then arose whether the original difficulties were altogether hysteric conversion phenomena or whether they were the forerunners of a definite organic disease of the brain which took years to develop and were mistakenly regarded as psychogenic. There still remained the rather remote possibility that the loss of the ability to write was indeed hysteric in nature and the subse-

quent athetosis and dystonia independent sequels of the acute "flu" which may have been an unrecognized encephalitis. Of course the organic disease might conceivably, by pure chance, have involved the very parts of the body which were also hysterically affected, but it is a fact of experience that cases of dystonia are for years regarded as hysteria and the correct diagnosis is made only after prolonged observation. In any event the case herein reported illustrates the difficulties of diagnosis even after extensive investigation.

War Neuroses.—Under this heading were included a great many conditions which had little in common except their occurrence during the World War. Some of them were not neuroses and others had little to do with actual war. Various designations, such as *shell shock*, *exhaustion neurosis*, *concussion neurosis*, *fright neurosis*, and *neurocirculatory asthenia*, were applied to the numerous manifestations which were so prevalent among the soldiers of all nations. At first there was insufficient insight into those conditions, and the various names were given by men either because the approach to the problem was colored by vague personal views or a certain symptom-complex by chance predominated. Some of the names, particularly shell shock, were outright misnomers. Many of the soldiers developed their symptoms after slight or no injury during combat, behind the lines, in concentration camps a long way from the front, and in training camps at home. On the other hand numerous soldiers suffered from severe concussion of the brain and spinal cord, which sometimes led to an immediate or delayed fatal issue and yet no gross lesions were demonstrable in the nervous system. Such instances were generally attributed to the sudden, possibly atmospheric, effects of violent explosions on individuals who were within a short radius of the center of explosion. Based upon those observations some neurologists and psychiatrists, following Sir Frederick Mott, attributed many of the symptoms of so-called shell-shock to definite organic lesions

even though they could not be demonstrated in the living patients.

The vast majority of signs and symptoms were true hysteric conversion phenomena. They consisted of tremors, astasia-abasia, paralyses, stammering, blindness, aphonia, and a host of others. Many soldiers suffered in the main from mental symptoms rather than physical signs, and the observation was made that it was the officer and more sensitive, educated or cultured soldier who showed the higher psychic rather than the lower somatic manifestations. This fact may well bear out the theoretical view expressed on the changing manifestations of the neuroses and also serve as indirect proof of the theory advanced. In any case such patients had frightful nightmares which recurred with considerable regularity, and they generally awoke from their terrifying dreams with intense fear, the body covered with perspiration, and many other signs of anxiety. The soldier vividly relived in his nightmare the terrible experience which he went through during the war, such as going over the top, being buried alive, engaging in hand to hand combat, or falling in an aeroplane. The vast majority of symptoms, however, were of the lower level hysteric conversion phenomena. Most of them were exactly like those described in the Charcot and Benheim clinics, as typical of hysteria and due to suggestion, and were similar to those met with in civil practice; though it is noteworthy that since the war and in the decade or two before it such gross hysteric phenomena have only occasionally been encountered.

In general it may be stated that in so far as their symptomatology was concerned there was no good reason for classifying the so-called war neuroses as separate entities. In the vast majority of instances the mental mechanisms were typically hysteric in nature and did not demand the labored and abstruse explanations which were so profusely advanced. The phenomena of auto- and heterosuggestion were so prev-

alent that many observers invoked suggestion as the universal explanation and confidently, and in a great many cases successfully, made use of it in treatment. Seeing that the psychosexual theory alone did not explain all the phenomena Freud put forth the theory of a death instinct (*q.v.*) as opposed to the procreative one. Actually the symptoms were unconscious, purposive defensive reactions to sudden threats and immediate danger to life. They represented real wishes and flights from reality, and were true responses to biologic needs, defense reactions to inner conflicts. Those soldiers who developed the hysteric disabilities obviously were not malingerers because the whole process was unconscious. Just because they had a sense of duty, of esprit de corps, of patriotism, etc. and could not honorably or safely run away from combat, they developed the inner conflicts and consequent symptoms. The reactions were truly instinctive in the interest of the most primitive instinct. But they differed in this from those occurring in hysteria, in that the *ego instincts*, those having to do with the preservation of the individual in the struggle for survival, were involved rather than the psychosexual or reproductive. The field of battle of the unconscious conflicts was different, but the mental mechanisms were the same: external stress, inability to adjust to reality, unconscious inner conflict, regression, compromise reaction, defense symptom formation, and escape from threatening danger. There was a real "flight into sickness," the symptom serving the purposes of the wish.

Traumatic Neurosis and Traumatic Hysteria.—In the chapter on Classification the view was expressed that traumatic neurosis may possibly be grouped with the actual or true neuroses as opposed to the psychoneuroses. There is considerable dispute about this, and there are those who do not acknowledge such an entity at all. They recognize the existence of traumatic hysteria, which consists of a group of psychogenic symptoms ostensibly built around an injury, and

concussion of the brain which eventuates in a similar, though more vague, clinical picture, presumably as the result of minute but actual cerebral injury. Obviously the whole question is not only of theoretic interest but is of great importance from the medico-legal point of view, not to mention the patient himself. The fact is that following some trifling or more serious accidents, particularly falls on or blows to the head, which may or may not have been accompanied by slight clouding, or very brief loss, of consciousness, many individuals develop a train of symptoms which are characteristic of the general neuroses. Very often the patient has few or no complaints to make after his temporary discomfiture, except for some minor bruises he is apparently well, shows no organic signs of involvement of the nervous system, and in many instances is able to return to work for a variable period of time. That is, there seems to be what has been correctly designated as an *incubation period* of a few days or weeks, more seldom months, before the whole symptom-complex evolves; although in a greater number of cases it sets in gradually or quite rapidly immediately after the injury. Those syndromes generally follow industrial accidents. They have been observed, of course, during the war, and they occasionally occur in individuals who have merely been "shocked" in railroad accidents or explosions without having received any demonstrable injury. As has already been pointed out they most often follow blows to the head, but are not at all uncommon after injury to other parts of the body.

The two main complaints are *headache* and *dizziness*. Both, of course, are subjective in nature and difficult to evaluate properly, but they are obviously real to the patient. The dizziness generally is unaccompanied by the usual evidence of labyrinthine vertigo, such as nystagmus, falling, pass-pointing or vomiting, but it is colored by considerable anxiety. The patients become irritable, apathetic or even depressed, they weep easily, cannot concentrate and are unable to do

any work, let alone resume their former occupation. They complain of impairment of memory and noises in the ears or head, and often have generalized or localized, mostly coarse, tremors, particularly of the hands. They may have attacks of faintness, or fear of fainting, and very rarely actual syncope, palpitation, dyspnea, flushing of the face and body, sweating, or other vasomotor disturbances, pains and aches, particularly in the scalp or skull, numbness, various dysesthesias, and generalized anxiety. Sometimes one observes ataxic or bizarre gaits, stammering speech, and other gross psychogenic manifestations; but unless the condition is definitely hysteric in nature the symptoms are, as a rule, mainly subjective in nature. On physical examination one can find no definite signs of organic involvement of the nervous system. All the reflexes are generally hyperactive, the pulse is labile, the blood pressure often low, and there may be present mild signs of hyperthyroidism. Occasionally individuals who have been "shocked" by explosions or been through other harrowing experiences in industrial accidents, without having been actually injured, suffer from horrible nightmares in addition to some or all of the symptoms enumerated above. As was more commonly the case with soldiers during the war the civilian, too, may relive during the dreams all the terrifying moments experienced during the accident, accompanied on awakening with all the manifestations of acute anxiety. Those anxiety dreams have the tendency to recur unchanged for a long time.

Now, it is noteworthy that the very vast majority of cases which pass either as traumatic neurosis or traumatic hysteria occur in industrial accidents where the questions of compensation and, frequently, of litigation play an important rôle; that is, the illness which is directly or indirectly attributed to the injury is assumed to represent an actual or fancied gain to the individual. This assumption is made irrespective of whether the accident is regarded as a causative or precipitating

factor. Wherefore many observers would deny the existence of traumatic neurosis as an independent entity and consider the whole syndrome one of traumatic hysteria. To fit in with this conception, individuals included in this group must be psychologically assumed to find in illness an escape from unconscious difficulties. As a corollary such persons must be regarded as having been potentially hysterical; in which case the trauma served merely as the precipitating cause of the conversion, anxiety or other hysteric symptom. The mechanism, therefore, is exactly that of hysteria precipitated by other conditions. To escape the drudgery of existence, the grind, monotony and, in many cases, bleakness of modern industrial life, family conflicts, personal maladjustments, or what not, the individual unconsciously makes use of the trauma to meet his own difficulties. To be truly hysterical it must be obvious that the patient is unaware of the fact that his illness serves, for instance, as a method of retaliating against an employer, punishing a nagging wife, or as a refuge from personal psychosexual conflicts. That the individual meanwhile suffers himself and gives up a living wage for a mere pittance of compensation cannot, if the psychologic interpretation of hysteria is correct, be regarded as an unanswerable argument because the unconscious gain may more than outweigh the loss in terms of money or the endurance of mental and physical suffering. To emphasize once more, traumatic hysteria is a disease following an accident and occurring in an individual who has an underlying neurotic personality or character make-up. It should be pointed out, too, that such neuroses can and do occur after minor injury even when the question of compensation and litigation does not enter at all.

But if one excludes all cases correctly regarded as hysteric, those fostered by poor management on the part of physicians or encouraged by bad advice on the part of lawyers, and true malingerers, there still remains a debatable group which cannot be easily dismissed. The cases belonging to this

group do not betray the definite mental mechanisms characteristic of the traumatic hysterias. The term traumatic neurosis should be limited to that small group. Whether or not a certain degree of concussion of the brain may be assumed in some of the cases is difficult to say, but I believe they represent, in psychologic terms, either "actual" or ego neuroses. While one may not be able to demonstrate physical changes, such as are assumed in neurasthenia, hypochondria, and anxiety neurosis, the traumatic cases may still be classed with the neuroses. As a matter of fact, some observers predicate minute changes in the nervous system, such as are found in concussion of the brain, and recently the designation of traumatic encephalitis has been introduced, on what I believe to be limited and insufficient evidence, for cases of so-called concussion neurosis. Psychologically speaking the term ego neurosis would fit those cases wherein the patient goes through in his repeated nightmares the harrowing experiences which actually represented a serious threat to his ego. The assumption is that the self-preservation or ego instincts are involved, and not the psychosexual organization as in hysteria. Whatever the psychologic explanation, the fact remains that many of the traumatic neuroses do not yield to treatment and persist after all obvious causes have been removed. They resist analysis.

Case XXXI.—I. H., a tailor fifty-four years of age, complained of pain in the right side of the head and the left leg, headache, and spells of confusion and delirium. One week before coming to the office he slipped and fell down a whole flight of stairs, striking the right side of his head and the left leg. He was not unconscious and did not bleed from the mouth, nose or ears. He was taken home complaining of headache and pains. The next afternoon, and every day thereafter, he began to have the following episodes: He suddenly became confused and delirious, rambled incoherently and nonsensically, and shook all over. This lasted for an

hour, then he became himself again, remaining well till the next day brought a recurrence. He had no recollection of what he said or did during the episodes, though it was evident that he was not unconscious. Except for apprehensiveness, excessive reaction to painful and other stimuli, and of the residual signs of contusion of the left leg and ankle, the examination revealed nothing abnormal. An X-ray of the skull was also negative. The family physician reported that he regarded the patient, whom he had been treating for years and years, as a neurotic, that he had been a struggling working-man all that time, and that his family life had not been happy. The patient was seen subsequently, but, except for a lengthening of the intervals between the spells, the condition had not changed. Litigation had meanwhile begun and he was receiving partial industrial compensation for his disability. Careful observation immediately before, during, and promptly after the spells failed to confirm the claim that they were "epileptic" in nature. The patient did not work for two years. While on the witness stand during the trial in court he had one such episode. The case was adjusted after that. There was no doubt at all of the hysterical nature of the condition. The trauma precipitated a neurosis which unconsciously served as an escape from the drudgery of work and the burdens of the home.

Case XXXII.—G. E., a school teacher nineteen years of age, complained of depression, sleeplessness, nervousness, general pains and aches, twitching of the left eyelid, and anxiety. The history was that three years before she was knocked down by an automobile and rendered unconscious for about twenty minutes. She did not remember how she struck the pavement; all she knew was that she was taken to a hospital. She had one wound on the forehead and another on the chin, both of which required suturing. Immediately upon regaining consciousness she began to suffer from occipital headache and shortly thereafter also from dizziness. Both lasted for six months. Meanwhile she began to have daily spells of faintness accompanied by anxiety, fear of some impending calamity and of going blind. She was kept out of school that

term but despite the persistence of the complaints enumerated above she managed to return to college, to graduate and become a teacher. Throughout the three years she suffered occasionally from terrifying dreams. The question of litigation apparently did not loom very large. So far as could be ascertained there were no definite hysteric mechanisms, and the case was considered one of traumatic neurosis.

From the illustration just cited and the criteria given it is clear that the problem is not simple and that it has great practical importance. The ready suggestibility of most human beings, the difficulties in life from which trauma occasionally offers an easy escape, the bad management on the part of some physicians and lawyers, the encouragement to litigation on almost everybody's part, and the modern industrial organization and compensation provisions, not to speak of the possibility of actual but not demonstrable organic changes following any blow to the skull, all complicate every neurosis following trauma. The medical, no less than the legal, difficulties are further increased by the general insistence on positive opinions which the intellectually honest neurologist cannot always give, and by the conflicting testimony of experts who take sides in dubious cases. The fact is that all neuroses following trauma are difficult to manage and therefore have a comparatively bad prognosis. A number of patients continue to have incapacitating symptoms until they have received full and ample compensation, and no amount of treatment is of any avail. Some of those come dangerously near the malingering class, though patients with traumatic hysteria may react in the same way without being malingerers. It would seem advisable, therefore, to make, wherever possible, immediate financial settlement and thereby remove all economic incentive to further sickness. Such settlement would have favorable influence on practically all cases which come under the heading of traumatic neurosis and traumatic hysteria. In most instances a just and fair

appraisal can be made within a few weeks of the accident, before the symptoms can undergo internal incubation or be subjected to environmental influence. Errors of judgment are hardly likely in more than ten per cent. of cases, and those could be made subject to review within six months or one year. Obviously one must exclude cases with definite organic lesions and probable sequels, such as paralysis and convulsions. But even in such instances there often coexists a manifest neurosis which must be dissociated from the organic condition. The difficulties, however, are not all on the side of those individuals who unconsciously find in the accidents and the consequent neuroses occasions for "gain." The parties liable for damages and other interested persons often seek to deprive the patient of his just dues and invoke all legal technicalities and subterfuges, particularly the advantages of delay, to escape financial responsibilities. The economic motive obviously works both ways. But lest the discussion of economic factors convey an erroneous impression it must be strongly emphasized that clinically and psychopathologically neither traumatic neurosis nor traumatic hysteria is primarily conditioned by such factors and that the trauma must be regarded as the precipitating cause.

CHAPTER VI

THE DIAGNOSIS, COURSE, AND PROGNOSIS OF THE NEUROSES

The diagnosis of the neuroses is at the same time the simplest and the most difficult in the whole domain of medicine. It is hardly an exaggeration to say that more skill, knowledge and understanding are necessary in this than any other field, and yet almost everybody without regard to the kind or extent of his information has quite a definite opinion on the subject and feels competent to make a diagnosis or even prescribe treatment. The word nervousness and the more loose expression nervous breakdown are used for a multitude of conditions, some of which have no relation to one another or to the neuroses and others which are occasionally so complex as to baffle even the most skilled diagnostician. The curious notion still prevails among a vast number of medical men that if no signs of organic disease can be found on thorough examination and no definite diagnosis can be arrived at the easiest way out is to call the patient neurotic and either lose all interest in him or treat him as if he were not sick. At the other extreme is the prevailing tendency to "work up cases" and submit to all sorts of tests and examinations patients suffering from psychogenic disorders, whose condition would be obvious if insight and understanding rather than irrelevant clinical and laboratory investigations were brought to bear on their problems.

I believe the statement is warranted that in the present state of our knowledge it is a mistake to make a diagnosis of neurosis by exclusion alone. While it is true that the presence of paralyses, inequality of reflexes, a Babinski sign, pupillary

anomalies, dissociated sensory disturbances, and other definitely anatomic signs point to lesions of the nervous system, just as a great many other clinical signs and symptoms reflect various systemic diseases, their absence does not necessarily speak for a neurosis. An incipient dystonia musculorum deformans, a tic or spasm caused by encephalitis, a latent carcinoma of the stomach or spine, occasionally a tumor of the brain, a slowly advancing general paresis, an early cerebral arteriosclerosis, a mild hyperthyroidism, an obscure anemia, an incipient tuberculosis of the lungs or spine, not to mention a host of other conditions, may well lead to the erroneous diagnosis of neurosis because of the temporary absence of physical signs. Furthermore, a patient with some definitely organic disease may also have a neurosis, or at least a sufficient number of psychogenic symptoms engrafted upon the underlying condition to obscure the whole clinical picture. It is absolutely essential, therefore, always to make a complete neurologic and general medical examination in order to exclude, so far as possible, the presence of organic disease. It is also advisable to reexamine a neurotic patient from time to time, not alone for psychotherapeutic reasons, although such a procedure is held to be contrary to effective psychoanalytic practice, but because even a neurotic may develop an organic disease during the course of treatment, and the incipient symptoms must not be disregarded or interpreted as psychogenic.

No diagnosis of hysteria, neurasthenia, compulsion or other neurosis should be made without a thorough history and the discovery, as far as one may be able, of psychogenic factors. The latter may not always be possible, particularly in unintelligent and incooperative patients, but competent investigation nearly always serves to bring to light some determining mental mechanisms. The insight afforded by psychoanalytic knowledge not only justifies but makes imperative its use in diagnosis, even if one does not deem it advisable

to employ it for the purposes of therapy. Whatever the ultimate judgment on psychoanalytic interpretation of signs and symptoms or general behavior manifestations may be, the fact remains that without psychoanalytic understanding many of them appear meaningless, bizarre or queer and baffle not only understanding but all intelligent treatment. Finally, the statement occasionally heard from the mouths of conservative somatists that they are "afraid" to make a diagnosis of hysteria is puerile. It is difficult to understand what is meant by being afraid, as it is no less "dangerous" to make a diagnosis of tumor of the brain or carcinoma of the stomach than of hysteria; but if by that is meant the fear of mistaking a serious organic condition for a neurosis the answer is that the possibility of overlooking the presence of a neoplasm, for instance, is not great if competent physical examinations are repeatedly made. The harm frequently occasioned by telling a patient that he has a serious disease when he has not is also not to be overlooked.

The diagnosis of the neuroses involves the differentiation, 1, of psychogenic from organic or physiogenic diseases, 2, of the various neuroses from one another, 3, of the neuroses from the borderline psychoses, and 4, of the neuroses from malingering.

As psychogenic disorders may simulate every conceivable organic disease of the nervous system and many other diseases besides, a differential diagnosis to be complete would necessitate a detailed description which only a treatise on clinical medicine could furnish. To obviate all the diagnostic pitfalls, a sound knowledge of medicine is necessary, but it is obviously impossible to communicate it in this place. Here I shall merely call attention to the more important conditions and briefly describe those which most commonly lead to errors of diagnosis. Many attempts have been made to establish certain general clinical criteria to serve as guides, but they are not always dependable and are least helpful in the special instances where the doubts are greatest. The most reliable

method is to study each case individually and intensively, not to put too much emphasis on isolated signs or symptoms, and to evaluate properly the whole clinical picture, the history, the precipitating factors, the mental setting and the general type of reaction.

In the matter of anxiety neurosis or anxiety hysteria one should particularly bear in mind disease of the cardiovascular system, of which angina pectoris is the most important. Although this condition generally occurs past middle life it is not uncommon before that age. But the general limitation of the distress to the precordial region and the frequent radiation of the pain to the left shoulder, the dyspnea on exertion, the variation in the blood pressure, especially the diastolic increase, the character of the acute attack, the physical signs, especially the electrocardiographic, and the peculiar gastric distress all point to the organic nature of the condition. The so-called vaso-vagal crises (*q.v.*) deserve passing mention. It is particularly worthy of note that valvular disease of the heart and cardiac decompensation of even the mildest degree often engender very intense anxiety. In psychogenic anxiety, on the other hand, all heart signs, except for palpitation, are wanting, and the elicitation of a history of coitus interruptus, fear of pregnancy, frustrated sex desire, enforced abstinence, conflict over masturbation, etc. may directly point to the cause. In addition, the comparative youth of the patient, the long duration, the remissions, the precipitating psychic factors on most occasions, despite the superficial absence of motivation, all speak in favor of the neurosis.

It has already been stated that a diagnosis of hysteria or other neurosis should be made with caution in a person past forty who has previously shown no neurotic manifestations, because the history of practically every neurosis traces back to adolescence and early childhood. This is particularly true of neurasthenia, even though it may manifest itself comparatively late in adult life. In many cases one elicits either a

history of masturbation of long standing or of partial or complete impotence. Should an adult or middle aged person present a syndrome of neurasthenia without a long antecedent history one may justly suspect beginning cerebral arteriosclerosis, tumor of the brain, incipient cancer, tuberculosis, pernicious anemia, Addison's disease, and, most important of all, general paresis.

Cerebral arteriosclerosis often is characterized by headache, easy fatigability, vague or pronounced memory defect, irritability, depression and other emotional changes, and even impotence; but in most instances one finds tell-tale evidence in the form of hypertension, some degree of kidney involvement, a certain amount of cardiac enlargement, sclerosis of the arteries of the retina and of other vessels in the body. As the condition progresses mild or severe focal paralytic signs are apt to occur, the memory defect increases and true character and personality changes set in. In *Addison's disease*, which is fortunately rare, the fatigability gradually progresses in severity and does not recede as the day progresses, the blood-pressure is extremely low, there is apt to be marked loss of appetite, diarrhea, and pigmentation or bronzing of the skin and mucous membranes. *General paresis*, when fully developed, presents no diagnostic difficulties, as it is essentially a definite psychosis with special organic signs, the result of syphilis which can be invariably proved by serologic tests; but in the early stages it may well simulate a neurosis. The mild depression, exuberance or euphoria, irritability, slight memory defect, fatigability, lapses of conduct, volubility, personality change and vague hypochondriacal symptoms are often mistaken at first for neurasthenia, and it is only with the advent of grave psychotic manifestation and characteristic physical signs that the true condition becomes apparent. The fact, too, that remissions characterize this disease as they do the neuroses, adds to the difficulties of diagnosis. But even very early one finds pupillary anomalies,

especially the Argyll-Robertson phenomenon, fine tremor of the lips, tongue and fingers, alteration of reflexes, impairment of articulatory speech and, most reliable of all, a positive blood and spinal fluid Wassermann reaction.

Case XXXIII.—D. A., a theatrical man, thirty-eight years of age, complained that he was frightfully excited, that his hands shook, that he had uncontrollable fits of weeping, that he could not sleep, eat or concentrate upon his work, that he was afraid of himself, that he was horrified by what might happen to him, that he might go crazy, and that he could not pull himself together to attend to pressing work. While telling his story he was extremely restless in the chair, jumped up several times in the course of his recital to pace up and down the room and held his head in gestures of despair. After a while he calmed down sufficiently to tell the following story, to which he attributed his utter demoralization. It should be added that he was perfectly coherent, very logical, and apparently had good insight into things in general. He was a successful theatrical producer and had been married and lived happily with his wife up to about two years before, when he met a married woman with whom he fell in love. She reciprocated his affection, indeed they began to have sexual relations, and they decided to divorce their respective spouses in order to be able to marry. He ultimately succeeded in getting his divorce and she was about to get hers. At this time he met a young actress who so completely fascinated and captivated him that he became violently infatuated with her. Though not a novice in affairs of love he literally went into ecstasy over her allurements, asserting that he could not live without her. And yet he was devoted to the woman who left her husband for his sake, whom, he fully realized, he was in duty and honor bound to marry, and who, by his own admission, was in so many ways superior to the young actress. He had gone so far as to tell his prospective wife of his last infatuation, but she promised to stand by him if he would give up his new found love and remain faithful to her. One day the young lady decided to go to New York, several thousand miles

away from his home city, and he went to see her off. The separation was too dreadful to bear, so without saying a word to anybody or bidding good-bye to his lady at home, he accompanied the girl to her destination. Whether she just got tired of him or reacted to the discovery that he had left a betrothed behind he could not tell but she spurned his affections after their arrival in this city, though not before he procured for her a very lucrative position. He kept on pursuing her frantically, but all to no purpose. Meanwhile the woman at home learned of his whereabouts, and she began sending him message after message, begging him to come home and promising forgiveness if he would only return. This utterly demoralized him. He was in truth torn between his devotion and sense of duty to a faithful woman and his passionate craving for a jilt, and he sought my advice what to do, at the same time begging for medication to soothe his ragged nerves.

As he unfolded his story it became evident that, despite his good sense and faultless reasoning, he overreacted emotionally for a cultured, experienced and intelligent man of the world, and that after all there was more than one flaw in his action if not in his logic. A callow youngster of eighteen might possibly behave in just that way, but hardly a man of thirty-eight who knew life and love, who more than once realized that the world does not come to an end over such matters and that even volcanic love can be extinguished, and who evidently preserved a sense of duty and honor with reference to his obligations. The question even arose as to why he came to me for the solution of a social problem which could perhaps have been more helpfully and substantially handled by a wise and trusted friend. Based upon all this the suspicion arose in my mind, even while he was detailing the facts, that, potent as the situation was to bring about a neurosis, something deeper was responsible for the character change, and that incipient general paresis might well be the cause. Therefore, instead of offering advice, I asked him when he had syphilis. The inquiry at first disconcerted him and he wondered why I put the irrelevant question so bluntly, but

after a while he admitted an infection several years before. Physical examination then amply confirmed the suspicion and subsequent serologic tests proved the diagnosis beyond a doubt. Fortunately, intensive treatment was successful in bringing about a remission and he returned home and to his work. Aside from its inherent interest the case is cited as an illustration of the oft-repeated statement that a neurosis setting in rather late in life, in a man who was previously well-adjusted, should arouse the suspicion of organic disease of the brain, and that general paresis is one of the conditions to be thought of.

In some states of acute or chronic anxiety one may find mild signs of hyperthyroidism, and, conversely, many cases of incipient *Basedow's disease* are characterized by anxiety and other symptoms commonly attributed to the neuroses. It is difficult, therefore, to state whether one is confronted with a psychogenic condition or actual disease of the thyroid gland. In such instances it is necessary to determine the presence of increased metabolism, to look for a consistently rapid pulse, feel for enlargement of the thyroid, and try to evaluate the tremor, exophthalmos and sundry ocular signs, sweating, dermatographia, loss of weight, and other signs or symptoms. Various disturbances of the endocrines should be carefully looked for, because many a neurosis may, on careful examination, turn out to be the atypical manifestation of disease of the ductless glands. Hypothyroidism, even without reaching the grade of cretinism or myxedema, may be characterized by dullness, depression, irritability, memory defect, apathy and lesser symptoms simulating those of the neuroses. Similarly, impotence may be a sign of hypopituitarism or gonadal insufficiency, sexual precocity of disease of the pineal or adrenal glands. What passes for menopause neuroses, aside from psychogenic factors, may well be due to changes in the sex glands and so may some of the neuroses occurring at puberty and during pregnancy; although it must be

admitted that our present clinical evidence is all too meager for positive correlation. *Acroparesthesia*, which is a condition occurring in women during or following the menopause and is characterized by peculiar sensations in the limbs, more particularly the hands, together with slight vasomotor disturbances, may not be easily told apart from the general conversion signs of hysteria. Other mild vasomotor and trophic neuroses and obscure involvement of the vegetative nervous system, with especial reference to the ill-defined vagotonic and sympathicotonic syndromes, should also be borne in mind.

Multiple sclerosis is another disease of the nervous system which must be considered in the diagnosis of hysteria. This organic affection also sets in early in life, most commonly before thirty, like hysteria it is characterized by remissions and exacerbations, and is frequently accompanied by emotional changes, such as euphoria and unmotivated laughing. However, in this disease one finds definite organic signs, such as tremors, very lively deep reflexes and absent abdominal reflexes, the Babinski sign, ataxia, scanning speech, nystagmus, temporal or complete pallor of the optic disks, etc., something one never sees in hysteria. Occasionally, headache as an isolated symptom of *tumor of the brain*, before the advent of more definite signs, may be mistaken temporarily as hysterical, but the onset of true vertigo, vomiting, choked disk and focal signs will soon aid in making a correct diagnosis. I have seen what ultimately proved to be a typical case of hysteria simulate brain tumor and for a long time deceive experts. Being a subjective phenomenon it is always difficult to evaluate *headache* by itself. This almost universal symptom occurs on the basis of so many organic conditions that one should hesitate to call it psychogenic without eliminating all possible causes. The hysteric headache, as a rule, is more of a pain in the head or scalp, the patient does not somehow give the impression of genuine suffering and occasionally shows

indifference or a telltale smile even while asserting that the headache is most unendurable. The headache following trauma to the skull, especially when there was severe concussion or fracture unaccompanied by other organic signs of injury to the brain, must not be confused with the psychogenic pains. Hysterical headache may simulate *migraine*. The latter, as the word implies, is headache limited to one side of the head. It generally occurs periodically, usually sets in early in life, often on an hereditary basis, is self limited, and is commonly terminated by vomiting and sleep. It is a "bilious" headache whose cause is unknown, and not precipitated or maintained by psychic factors alone. Hysterical psychalgias may deceive even the wary, and it is common knowledge that many a patient with psychogenic abdominal pains is mistakenly (sometimes quite ignorantly) operated upon for appendicitis, gall-stones, ovarian cysts, cancer or gastric ulcer.

Tuberculous spondylitis, or *caries of the spine*, may be mistaken for hysteria, especially in young neurotics who not infrequently complain of pain along the back. But aside from the persistence of the pain, the exquisite local tenderness, which is nearly always present in tuberculosis of the spine, and the rigidity, the X-ray findings are generally pathognomonic. Cancer of the spine, too, may for a long time be regarded as hysterical, while the early X-ray picture is not at all characteristic. On the other hand, one should bear in mind the possibility of hysterical affections of joints, including contractures, edema and secondary atrophy. Neither the grand mal nor petit mal attack of so-called *epilepsy* should ever be confused with hysteria. It is now generally conceded that the diagnosis of *hystero-epilepsy* is entirely untenable. The genuine paroxysmal state quite commonly begins in early life, is more or less periodic and is invariably characterized by absolute loss of consciousness and amnesia for the attack. This is true whether it be a petit or grand mal seizure. The

convulsion is frequently ushered in by a cry or some aura, there is a sudden fall and sometimes serious bodily injury, tongue-biting, bloody frothing, absent response of the pupils to light, incontinence of urine, post-convulsive headache, and somnolence or confused state. None of these things occurs even in the rare hysteric fit. (*q.v.*) The *post-epileptic confusional state*, or the epileptic equivalent, in which the patient carries out automatic actions and may even commit violent acts, is differentiated from the *hysteric fugue*, by its briefness, suddenness, violence, the antecedent convulsion, the absolute amnesia, and, most important of all, the history. The diagnosis may sometimes assume extreme forensic importance as crimes of violence may be committed during *epileptic furor* or in the confused state, and the question of responsibility becomes paramount. In the case of true psychic equivalents the person is utterly unaware of his act, however purposive it may appear, and has complete amnesia for the whole episode. Although it has been said that there is no true unconsciousness in the hysteric fits and that what is commonly described as a fainting spell is not in reality an attack of unconsciousness, one does occasionally encounter *hysteric syncope*. The fainting of nervous persons at the sight of blood or on hearing sudden bad news may be interpreted as a literal shutting of one's eyes to, and running away from, an intolerable situation, and is in effect the result of psychic shock. Tetany, which is not accompanied by loss of consciousness, and schizophrenic catatonias should also be borne in mind. The former has a different etiology and often responds to specific therapy; the latter occur on the basis of a psychosis and not a neurosis.

The conception of hysteric *tics*, *spasms* and *myoclonias* has undergone considerable revision in recent years. It used to be taught that because an abnormal involuntary movement appears purposive, has a definite pattern and seemingly an ideational content, is precipitated or aggravated by emotion,

and disappears during sleep, therefore it is psychogenic in origin. But since the advent of epidemic encephalitis the occurrence of such movements on a definite pathologic basis with practically all the ear-marks just enumerated has thrown considerable doubt on the external criteria, and some observers have even questioned the hysteric nature of those hitherto so regarded. Without going quite so far it may be asserted that one should always entertain doubts as to the psychogenesis of tics and spasms, even though there be no signs of encephalitis or other organic disease of the brain, and that only a very detailed history and the positive demonstration of psychogenic factors warrant the diagnosis of hysteria in such cases. This is particularly true of hysteric torticollis. It is a well-known fact that practically every incipient case of dystonia musculorum deformans was formerly diagnosed as hysteria and still is by those not thoroughly familiar with the condition. There is grave doubt about the existence of hysteric myoclonia; certainly athetosis never is psychogenic. One should be unusually guarded in making a diagnosis of hysteric chorea. My own view is that such a concept is as untenable as the one of hysterо-epilepsy.

Anorexia nervosa or hysteric loss of appetite and *hysteric vomiting* may on occasion present considerable diagnostic difficulties. Ordinarily the neurotic lack of appetite is not severe and is not accompanied by proportionate loss of weight, while the vomiting most often consists of the mere regurgitation of a mouthful of food or fluid. In children hysteric vomiting is frequently related to meals, especially when the undesired food is forced on them, but this is not as a rule the case in adults who will sometimes take another meal as soon as they stop vomiting. The absence of definite pains especially related to the ingestion of food and its digestion, the negative X-ray findings of the gastro-intestinal tract, the history and the psychic reaction should call a halt to enthusiastic surgical therapy for the relief of hysteric vomiting.

The occupational neuroses also sometimes present diagnostic difficulties. In those cases it is important to rule out incipient or mild organic conditions and to look for signs of neuritis, tabes, syringomyelia, dystonia, and apraxia. The presence of muscular atrophy in the distribution of a peripheral nerve, root or spinal cord segment, fibrillation, electric changes, sensory loss and especially dissociated sensory disturbances, and the loss of deep reflexes obviously speak for organic conditions.

The diagnosis of the various neuroses from one another is of considerable clinical as well as psychologic importance, because both prognosis and treatment to a great extent depend on it. This, in turn, depends on one's point of view, upon one's psychopathologic approach, and on the classification one adopts. Obviously, if one still persists in making of neurasthenia a great nosologic group that will include every vague or pronounced "nervous" complaint which does not fit into other entities, adheres to the old conception of hysteria, with the emphasis on suggestion and intellectual dissociation, accepts Janet's theory of psychasthenia, and insists upon a somatic etiology of the neuroses, the differential diagnosis becomes not only difficult but one of rather doubtful utility. As the psychoanalytic point of view has been in the main adopted in the discussion of the etiology and symptomatology and strictly adhered to in the classification of the neuroses, the differentiation will be made accordingly. But at the risk of repetition I should like to emphasize once more that no rigid or even definite classification is possible and that both from a clinical and psychological standpoint the various entities must be considered as gradations in one great mental hierarchy and in a constant state of flux. From this it follows, and it is amply supported by practical experience, that one does not generally meet with "pure" syndromes of this or that particular classification, that transitional cases and mixed neuroses are very common, and that even in those

instances where a symptom or group of symptoms predominate one also finds manifestations of neuroses which are otherwise regarded clinically as separate nosologic entities. Finally, anxiety, aside from being the most common single symptom of the neuroses, colors almost every syndrome. Nevertheless a differential diagnosis based on some classification (*q.v.*) is necessary, if for no other reason than that it serves as an intelligent guide to treatment.

The diagnosis of *anxiety neurosis* should be restricted to those cases which are essentially characterized by attacks of anxiety accompanied either by vague fears or the specific fears of death, cancer, insanity, and so forth. Instead of having attacks the patient may suffer from chronic anxiety. In any case the assumption is that the condition is a true neurosis based upon actual psychosexual trauma, such as coitus interruptus, ejaculatio precox, sexual anesthesia, forced abstinence, dread of pregnancy in young women, or otherwise frustrated sexual desire and gratification. In some cases no such etiology can be found and in others the continued operation of one or more of the factors enumerated fails to precipitate either anxiety or neurosis. Distinction is psychologically made between the anxiety of anxiety neurosis and that of *anxiety hysteria*; clinically it is not easy to tell the difference between them. However the hysterical anxiety is more elaborate, has a fuller ideational content, is not determined by immediate psychosexual trauma, and there is underlying conflict with regression, unconscious dissociation, fixation at various psychic levels, and the production of conversion signs and symptoms. Finally, whereas intelligent explanation and removal when possible of the underlying cause often serve to dispel the simple anxiety in many cases of anxiety neurosis, the more complex states of anxiety hysteria do not yield quite so readily.

Whether or not one accepts the view that all cases of *neurasthenia* are directly dependent on excessive masturbation

the concept should be restricted to that ever-dwindling group of patients whose main complaints consist of lack of energy, diminished power of concentration, easy mental and physical fatigability, headache, pain in the back, and ejaculatio precox or impotence. Whatever the theoretic explanation the fact is that most neurasthenics are or have been inveterate masturbators whose sexual life is one continual travesty if not tragedy, and in those cases where no such history is elicited they show equal lack of sexual vigor. The true neurasthenic exhibits no complex psychologic background for his neurosis, does not betray anxiety or other hysterical phenomena, except as secondary elaborations, is not amenable to successful psychotherapy and is the most prized victim of quacks thriving on the myth of lost manhood. The symptomatology of incipient organic diseases simulating neurasthenia has been fully discussed in the beginning of this chapter.

Clinically it is not always easy to differentiate between a *hysteric phobia* and an *obsessional thought* or *compulsive act*. Psychologically the distinction lies in this, that the former is a conversion phenomenon, even though it is a subjective symptom, that it is always accompanied by intense affect and anxiety on the slightest threat to the ego, that it represents an unconscious wish, a masked desire for tabooed sex gratification; the latter is really a symbolic secondary defense mechanism, a reaction formation, an objective elaboration against sex gratification. The compulsion phenomenon expresses itself in outward acts, in repetitions, in the need for reassurance, and is not as a rule accompanied by anxiety unless the defenses, so to speak, break down, or the patient is prevented from carrying out his compulsive acts. The compulsive neurotic shows evidence of deeper regression, of more intense narcissism. The idea is more "fixed" and does not readily yield to treatment, hence why the French School speaks with some justice, even though the term itself is poor, of obsessions as "degenerations." There is an undoubted

unconscious sadistic and homosexual component to the compulsion neurosis, the patient often shows anal erotic traits, he is meticulous, stingy, introverted, and often of superior mentality. Clinically the compulsion is more "intellectual" in its expression as compared to the more emotional, affective hysteric phobia. Occasionally phobias and obsessions coexist, and not infrequently minor compulsive elements are present in all the neuroses.

The criteria for the differentiation of *traumatic neurosis* from *traumatic hysteria* have been elaborately stated in the chapter on Clinical Manifestations. To avoid repetition it is sufficient merely to restate that the distinction is not always possible, that the former is assumed to be a true, or ego, neurosis not on a psychosexual basis, that there is a considerable body of opinion which upholds the view that the syndrome is the result of actual brain injury due to concussion or commotion, and that many observers doubt its existence altogether. Traumatic hysteria, on the other hand, is conceived of as a neurosis unconsciously built around the precipitating trauma, that the patient was previously a sensitized hysteric, and that the mental mechanisms differ in no way from those operating in any other type of hysteria. The same thing may be said of the so-called *war neuroses* (*q.v.*).

It is comparatively easy to differentiate between a frank *neurosis* and an equally frank *psychosis*. Despite the unconscious determination of his symptoms the neurotic has fairly good insight into his condition, realizes that he is sick, in fact overreacts to, and suffers unduly from, his symptoms, consciously at least wants to get well, and is in direct mental rapport with his environment. Though he is maladjusted and in conflict with himself and the forces around him, there is a constant interplay between his inner and the outer world. Therefore the neurotic is not truly antisocial, even though he may be unsocial. The neurotic is sufficiently normal, his ego, his sense of reality, is strong enough to keep his personal-

ity intact, and there is abundant power of repression to keep the unconscious, instinctive cravings from breaking forth into a world which will not tolerate their unbridled expression. The psychotic, on the other hand, has no insight into his condition, does not realize, as a rule, that he is sick, has failed to adjust to reality and more or less completely broken with the group and his environment. He has become either entirely asocial or markedly antisocial. The loss of insight and breach with reality, the absolute conflict with the outer world, the depth of the narcissistic regression, the absence of repression, of an ego ideal or real ego influence, and the complete barring of the unconscious workings of the mind lead to such character and personality changes that there is no longer that fine gradation to the normal which is seen in the neuroses. Not that all the characteristics just enumerated are to be found in every psychosis, or even to the same degree in most of them, but there is a grave and fundamental psychic alteration in all of them. The changes of mood and affect are profound and not as labile or superficial as in the neuroses. The psychotic has delusions and hallucinations which are very real to him. He projects onto the outer world ideas and motives which belong to himself, conflicts which rage within.

In psychoanalytic terms the psychosis is regarded as the result of conflict between the ego and the outer world, in contradistinction to the neurosis wherein the conflict is essentially limited to the individual. In the psychosis the ego, so to speak, entirely submits to the id, or the unconscious, which is always in conflict with the environment, so that the individual must sever his relation with the outer world. In the neurosis the ego is strong enough to master the id, to repress the unconscious impulses, or at least struggle more or less successfully against them; hence the personality remains intact and retains sufficient interest in the environment. The loss of interest in the outer world of reality on the part of the psychotic results in the creation of an inner world by means

of delusions and hallucinations. In the so-called narcissistic psychoses there is the struggle between the ego and ego ideal, and if the latter gains sufficient ascendancy over, or power of condemnation of, the ego the result is an ever increasing tendency to self-accusation or actual self-destruction. Freud thus distinguishes the levels of conflict with regard to the neuroses and the psychoses. In the transference neuroses there is conflict between the ego and the id; in the narcissistic neuroses (e.g., manic depressive or melancholia) between the ego and the super ego; in the more profound psychoses between the ego and the outer world.

The theoretic view that the mental mechanisms of the normal and neurotic person differ in degree rather than in kind from those of the psychotic is not invalidated by the emphasis on the sharp distinction of the objective or clinical manifestations of those mental processes in each particular entity. The depth, emotional intensity, dissociation, direction and grouping of the psychologic processes may vary to such an extent as not only to result in entirely different symptoms but to alter character and change personality. Thus, to a certain extent, jealousy is a normal phenomenon. What is known as *competitive jealousy* is a properly motivated reaction to the threatened loss of a love object, such as the normal male might feel if a rival tries to win his beloved away from him. A more advanced, this time abnormal form, is the *projected jealousy*, based on phantasy, which consists of the feeling that another person tries to deprive one of the lawful possession of his object of affection. For example, an elderly or impotent person who feels that he can no longer give to his wife the affection she desires or which he imagines her to crave, might conjure the idea that another lover makes advances or that she is actually faithless. Thus are the delusions of infidelity born. Transient marital jealousy may partake of the same nature, but naturally to a milder degree. Finally there is the *paranoid jealousy* which is directed toward

persons of the same sex and is conceived to be a defensive mechanism on the part of the paranoiac against his own powerful unconscious, homosexual cravings. And it is a fact that the true paranoiac is a person who has had little heterosexual desire or outlet, and in many instances actually is impotent. I have even seen a delusion of infidelity on the part of a young man suffering from a Parkinsonian syndrome caused by encephalitis wax with the onset of impotence and wane with the return of sexual power. Based also upon his unconscious, homosexual tendencies, and on the conversion of love into hate, the paranoiac sees in the enmity of others the reflection of his own hostile impulses. Hence the delusion of persecution and the defensive or offensive reaction to the imagined assault from without, which is but a displaced and projected threat from within. The extent, intensity, complexity, and degree of systematization of the paranoid delusions vary in different psychotic states and depend on the degree of inner dissociation. It is but a short step from the fear that people look at one, talk about one, try to persecute, attack, poison or kill one to the desire to avenge oneself on one's persecutors. In contradistinction to the *primary paranoid* state there is the *secondary paranoid* delusion which occurs, for example, in manic depressive psychosis. McDougall defines paranoia as a bad conscience, as a repression of guilt done or desired—which is true enough as far as it goes but does not go far enough.

The diagnosis of the *transient depression* which is frequently observed in some of the neuroses, especially hysteria, the more advanced depression based on actual motivation, and the very deep depression of the psychoses, especially *melancholia* and *manic depressive psychosis*, is determined by the degree of alteration in the affective mood and the mental reaction to it. In the psychoses there is retardation, want of insight, paralysis of action, a feeling of insufficiency, of unworthiness, of guilt. With psychotic depression, and this is particularly true of melancholia, there often goes a feeling of sin and transgression

against the laws of God or man; hence the desire for punishment and the thoughts of committing suicide to escape intolerable burdens. The depressed psychotic has too good a conscience, an hypertrophied ideal ego, and sits in relentless judgment upon himself. Just the opposite of the paranoiac. *Motivated depression*, such as results from the death of dear ones, great economic loss, or grave threats to one's honor, may also be very deep, but the intensity generally is in direct proportion to the cause.

While the mental mechanisms of *schizophrenia* or *dementia precox*, as Jung first demonstrated, are similar to those observed in the neuroses, they differ in their fixity, immutability and absolute incapacity of transference. Because the libido is conceived of as having regressed to the earliest points of fixation in infancy and to be attached to the ego, schizophrenia, like paranoia, is regarded as a narcissistic neurosis or psychosis. Clinically dementia precox is characterized by fairly definite manifestations which seem to grow out of a more or less well-defined type of personality. Although the psychosis may develop in the adult or even in persons past middle age, it sets in, as a rule, quite early in life. The individual may be normal to all intents and purposes up to puberty or even adolescence, and in fact is often bright in school. Perhaps he or she has been too much attached to the home and parents, more particularly the mother. The boy may have been shy and never have had a fight with other boys. The youngster did not make friends, was not of the "gang," did not care for sports, and preferred to stay home and read. That is, there is a history of unsociability and of a shut-in personality. Soon it is noticed that not only does he or she make no new friends but they cannot hold old ones. They withdraw more and more into themselves, stick, if possible, more to the home and the parents, become more unsociable and to some extent antisocial. Despite the intense attachment to the parents one often observes a latent or even overt

hostility to the parent of the same sex. All the while the individual shows no desire for love life, for heterosexual outlet, though he may practise masturbation. Gradually the budding schizophrenic begins to feel that people look at him, point at him, talk about him, and in many ways try to influence him. They may try to hurt him, poison his food, railroad him to prison or an asylum, sexually assault him, or murder him. Occasionally he will seclude himself when strangers come to the house or shut himself up in his room for days at a time. He may refuse food, talk or laugh to himself, decline to get out of bed, and take hours dressing himself or looking at the mirror. He may betray a great number of mannerisms, assume fixed, catatonic positions, or go into stupor. What is especially characteristic is the poverty of emotion and the almost complete dissociation of affect from intellect; which explains the occasional commission of cold blooded crimes by paranoid precoxes who betray not the slightest emotional flicker and are conscious neither of guilt nor of remorse. Such is the divorce from reality, the narcissistic regression and dissociation, that the delusions are generally fantastic and have little or no contact with everyday life; quite the reverse of those occurring, for instance, in manic depressive states. As time goes on all the symptoms progress. Generally speaking the intelligence is preserved for a long while, but deterioration ultimately sets in—least in the paranoid type and greatest in what is known as the hebephrenic variety. However remissions often occur during the course of the illness, and while true recovery almost never takes place the remission may be sufficiently marked to permit fair adjustment or even return to useful occupation at a lower level than before.

Paraphrenia, though described as a separate entity, probably is a mild form of dementia precox. Kraepelin defines *paraphrenia systematica* as a very slowly progressive psychosis which is characterized by persecutory trends, grandiose ideas, and splitting of the personality. Hallucinations, if present,

set in very late in the course of the psychosis and are apt to be auditory in nature. Paraphrenia generally becomes manifest at about the age of thirty or forty, is at first characterized by depression and later by scornful and threatening demeanor. Bleuler speaks of *paraphrenia expansiva* which follows a somewhat rapid course; of *paraphrenia confabulatoria* with falsification of memory and reference of grandiose and other delusional ideas to past events; and *paraphrenia phantastica* with more acute onset of senseless delusions and hallucinations. In all forms of paraphrenia there is fair capacity for work, considerable power of adjustment, and comparatively little deterioration. Altogether it is somewhat difficult to define paraphrenia. Most likely it represents a transition or borderline condition, not a specific entity.

Whereas the diagnosis of definite neuroses and psychoses is generally not difficult the differentiation of either from *borderline cases* is sometimes extremely so. The *schizoid*, autistic, introverted individual, who never progresses to the psychotic stage, may betray a number of neurotic manifestations and give rise to a clinical picture which defies classification. Such a person is generally oversensitive and suspicious, incapable of genuine emotional contact in friendship or love, overintellectual or at least fantastic, and often sets himself up or his ego against the external world. He is not the least impressionable and not at all amenable to suggestion or other psychotherapy. He may be the unsuccessful futurist poet or painter, the mystic philosopher or religious ceremonialist, or the seclusive and somewhat paranoid inventor. Though the ego is hypertrophied action may be paralyzed by extreme bashfulness and normal outlet by undue reticence. As a compensation for this failure to assert himself such a narcissistic individual may without apparent rhyme or reason run amok, so to speak, for a short time and as inexplicably return to his sulkiness. Similar, but less marked, schizoid characteristics may color practically every neurosis.

Whereas hypochondriacal complaints may be the temporary aftermaths of organic illness or of themselves constitute a mild actual neurosis, they may be the forerunners of more grave cerebral affections or the early manifestations of melancholia, schizophrenia, or paranoia. Indeed those somatic delusional symptoms are rather characteristic of some of the advanced psychoses. In simple *hypochondria*, however, there are no frank delusional or hallucinatory trends, even though there is equally little insight into the complaints, the patient is not antisocial and makes fair adjustment to life, despite the fact that he also makes himself and others miserable. The hypochondriac generally matures in middle life or later, constantly seeks from the medical man or the quack help which he never gets, and as a rule carries his symptoms with him to his grave.

It has already been remarked upon how difficult it sometimes is to tell where an *obsession* or *compulsion* neurosis ends and a delusion begins. The compulsive ceremonial may be so weird and the obsessional thought so dominating as to give the superficial impression that it is delusional. The neurotic behavior also is very deep seated, narcissistic, contrary to all reason, and not at all influenced by suggestion or other ordinary therapy; but the compulsive neurotic generally has good insight into his condition, even though he does not understand its significance, is painfully aware of the absurdity of his thoughts or actions, makes effort to rid himself of his obsession and tries to defend himself against it, and frequently has anxiety when his compulsive acts are interfered with. In the case of the delusion there is utter want of insight and no doubt in the mind of the patient as to its reality, and the psychologic mechanism is one of projection. Furthermore, the delusion is rarely the isolated foreign body in the midst of an otherwise healthy mentality; other psychotic manifestations, personality and character changes generally go to make up a different clinical picture. Even in the rare cases of true

paranoia, where an isolated delusion exists unchanged for years, there is a complex systematization which betrays the nature of the condition. The difficulties arise mainly in those ill-defined cases, particularly in young schizophrenic individuals, in whom the compulsion gradually merges into the silly mannerisms of the precox or the obsession into the delusional state of the same disease.

Malingering, or *feigning*, is perhaps more significant with relation to the psychoses, but not infrequently must also be distinguished from the neuroses. Ordinarily most persons tend to exaggerate complaints whenever the question of guilt or compensation comes into play, but this is not to be confused with outright malingering. The true malingerer consciously and voluntarily tries to reproduce signs and symptoms which he either previously had himself or observed in others. He may, to evade responsibility, escape punishment for crimes, or for the purpose of monetary and other gain, simulate diseases which he does not have or extravagantly exaggerate minor symptoms which he has. In every case there is a motive and the intention is to deceive. The psychologic distinction, therefore, is fundamental. Whereas the neurotic symptoms are unconsciously determined and are very real to the patient and the psychotic manifestations obviously beyond the control of the individual, the avowed ailments of the malingerer are conscious, artificial impostures. The malingerer purposely alleges loss of function or feigns all sorts of nervous symptoms. Prisoners accused of the commission of crimes sometimes feign insanity or plead amnesia for the events. The malingerer conveniently forgets on medical examination or on the witness stand facts which may hurt his cause and remembers advantageous details even though all events happened during the same period of alleged amnesia. He complains of subjective sensations which are difficult to evaluate; for example, pains, headache, dizziness, cramps, and noises in the ears. He may allege deafness, mutism,

blindness, paralyses or other gross defects which require great skill to disprove. The experienced malingerer may "throw fits" which casual observation may confuse with genuine convulsions, or simulate tremors, stammering, and various kinds of abnormal movements. In every case, however, there must be a motive, a conscious purposive effort to deceive, escape unpleasant tasks, situations or punishments, or a desire for actual gain through imposition. Some hysterics may simulate and deceive for no other purpose than to receive attention, and it is common experience that many are notorious liars. The last is true to a lesser degree also of epileptics, but neither can be regarded as true malingerers. It is quite possible that every malingerer is to some extent psychopathic, but never sufficiently so not to know the nature of his act.

Clinically, the detection of malingering does not as a rule present grave difficulties, though on occasion it may baffle even the most expert. Generally speaking the malingerer, whose knowledge of actual signs and symptoms is limited or erroneous, overdoes his "stunts," grossly exaggerates his complaints or is contradictory both in his behavior and his assertions. Contrary to the neurotic who wants to be repeatedly examined and to the psychotic who is mainly indifferent, the malingerer resents examination, makes no effort to cooperate and resists all efforts at cure, not realizing, of course, that he only prejudices his case thereby. He generally stops playing his role when he has reason to believe that he is not observed, so that it is necessary to catch him off guard at those times when he is not aware that he is being watched. In cases more difficult of detection, particularly when insanity is feigned, only prolonged observation in hospital wards and repeated examination can establish a correct diagnosis. A great many specific tests have been devised to detect feigned blindness, deafness and other gross symptoms, which only the expert can make, and a number of psychologic "tricks" or surprises are utilized to throw the malingerer off his guard.

What is really essential is a thorough knowledge of the neurologic and psychiatric conditions which are being simulated, so that one may be able to contrast the feigned with the real. Thus, for instance, there are no changes in the reflexes or other organic signs in simulated paralyses; there is no loss of pupillary reaction in the feigned convulsion; and no true retardation or suicidal tendency in assumed depressions. And yet even those criteria may not always hold, seeing that some of them apply also to hysteria. In the matter of feigned mutism it is well to bear in mind aphasia, deafness, intense depression, hysteria, and schizophrenic or other delusions.

Case XXXIV.—B. G., a singer and music teacher of forty-four, complained of pressure on top of the head, lack of power of concentration, loss of his ability to sing, eye strain, shaking, and fear of losing his mind. He was perfectly well up to four weeks before his coming to the office, when an electric bulb from a theatre shed fell on his head. He was stunned for an instant, but did not fall or even stagger and went home unassisted, without discomfort or signs of injury. Then it occurred to him that the theatre owner was liable for damage and that he ought to be compensated for his suffering. He also expressed the opinion that “they ought to be taught a lesson to protect the public.” During the examination he tried to convince me of the seriousness of his complaints and gave the impression of great suffering. In addition, he asked for a detailed report to bring to his lawyer, stating that he was completely incapacitated, and a promise to testify in court to the same effect. At first it was not quite clear whether the condition was one of neurosis or malingering, but observation of the patient through the window as he walked away from the office and his behavior on being told on a subsequent visit that I could not testify to his subjective complaints nor state that he was incapacitated convinced me that I was not dealing with a simple neurosis.

Course and Prognosis.—The course, like the prognosis, varies with the character, intensity and particular nature of

the neurosis, the type of the individual, the hereditary, familial, social and environmental circumstances, the duration or fixation of the illness, and, to a great extent, the nature of the treatment and the skill of the therapist. While some of the symptoms may come on suddenly the neurosis itself most often sets in gradually, follows a remitting course, fluctuates from time to time, and not infrequently is variable in its manifestations. Most of the neuroses begin in adolescence or early adult life, some become manifest at puberty, and not a few quite early in childhood; but there is hardly any age in which a neurosis may not set in. As a rule they persist for years and years, in many instances even for life. Although the menopause often dates the onset of neuroses, it sometimes marks their spontaneous cessation. The progress of the neurosis depends not only on the character make-up of individual and on the nature of his inner conflicts, but on the peculiarity of the external, environmental factors which have more or less conspired to bring it about, on the ultimate ability of the patient to adjust to them, and on the possibility of remedying or removing them. Generally, the prognosis is better in young individuals than in old and confirmed neurotics, in flexible than in rigid patients, and in those who can find some sort of outlet for their emotions, that is those who can transfer or sublimate them, than in the shut-in types. In the last group the possibility of recovery is almost mathematically in inverse ratio to the depth of the narcissism. Where the neurosis actually represents a greater unconscious "gain" than the recovery can offer, and the treatment only serves to incubate the illness, the outlook obviously is not very favorable.

In some cases of anxiety neurosis, when the specific cause can be removed, the prognosis is good; but not so, for instance, in the case of a married ardent woman who has a cold or partially impotent mate, in that of a faithful husband who has a frigid wife, or in those who for social, moral and other reasons must endure frustrated sex and love life. Young

neurasthenics who can be induced to give up masturbation and to adjust satisfactorily their love life are sometimes curable, though even in them remissions are apt to occur; old and confirmed masturbators who have ejaculatio precox or are naturally impotent, and are caught in the spokes of a relentless wheel and cannot escape the vicious circle, carry their neurasthenia to their graves. Hypochondriacal symptoms, being so deep-seated and almost delusional, so uninfluenced by suggestion or other psychotherapy, and so refractory to all treatment, are rarely, if ever, cured. Sometimes they subside spontaneously for a while, but as a rule they persist for life and occasionally even pass over into true delusional ideas.

The general outlook in hysteria, perhaps more than in any other neurosis, depends on its severity, on the duration of the illness and the age of the patient when he or she comes under treatment, on the type of the phobias, anxiety or conversion symptoms, and, most of all, on the skill of the therapist. Partial cures and spontaneous remissions are not at all uncommon, temporary amelioration quite frequent, permanent cures rather rare. The outlook is perhaps best in the few selected cases which are amenable to psychoanalysis and in patients who have gross conversion signs or typical hysterical anxiety and are appropriately treated by means of suggestion or hypnotism. Although the latter method is mainly successful in removing symptoms, which not infrequently recur in their original or altered forms, cures can be brought about by means of it, especially in monosymptomatic hysterics when the cause can be removed, as was the case, for instance, in the war hysterics. Neuroses in children, which are most commonly hysterical, offer perhaps the best prognosis if the environment can be favorably influenced or altered, the mother induced to cooperate, or the patients removed from the home for a long period of time. Generally, once a hysteric always a hysteric; but there is never any danger to life,

although fatalities have been reported on very rare occasions in cases of hysteric anorexia and vomiting.

Compulsion neurosis is a most stubborn condition. It is so closely allied to the narcissistic neuroses and in some instances the symptoms bear so close a clinical resemblance to the schizophrenic state that the disease is rarely if ever cured. Personally I have never seen a patient completely cured, although I have seen the symptom-complex removed sufficiently to amount almost to a cure. The neurosis generally begins early in life, not infrequently in childhood, there are often spontaneous remissions, and, if untreated, lasts a lifetime, occasionally merging toward the end into a psychosis. Compulsion neurosis is practically not at all amenable to most forms of treatment, and psychoanalysis alone has to its credit the fairly effective removal of symptoms, even if it, too, cannot claim complete cures. Hysteric phobias and anxieties are much more benign than compulsions or obsessions.

The prognosis of occupation neuroses in general is not unfavorable; in writer's cramp it is not good at all. In most instances the patients must give up the particular occupation which is responsible for the symptom. Tics and spasms, even if their psychogenic origin can be definitely established, generally have a bad prognosis. Hysteric torticollis is particularly refractory to treatment.

CHAPTER VII

THE TREATMENT OF THE NEUROSES¹

The management of the neuroses presents at once the most difficult and the most hopeful problem in the whole domain of neurology. Distinction must be made between the treatment and the cure of the neuroses. A great many patients are treated without being cured and some are cured without being treated. The result obviously depends not only on the method of treatment or the ability of the therapist, but on the type of patient and the nature of the neurosis. But while few are completely curable, most patients can be helped and the majority fairly well adjusted, provided they are treated honestly and intelligently. It has already become evident from the preceding discussion that in selected cases psychoanalysis is the therapeutic measure of choice and perhaps offers the greatest promise of their radical cure; but it is not to be inferred that it is the only method which can be successfully employed in the vast majority of cases. Aside from the fact that not every patient lends himself to psychoanalytic treatment, only a small proportion of the neuroses are at all amenable to it; nor can this prolonged and time-consuming procedure be efficiently utilized at present in public clinics visited yearly by thousands of patients nor by busy physicians with large practices. Any therapeutic measure which promises relief, if not cure, is both indicated and justified. Certainly every psychotherapeutic method is capable of bringing about

¹ In the present chapter, more than in the previous ones, I incorporated practically unchanged all the ideas and most of the language of the chapter on the neuroses in my Text-book of Clinical Neurology, and merely amplified and expanded what I still think best expresses my views.

favorable, sometimes temporary and occasionally permanent, results.

In no branch of medicine does the therapist require so much tact, art, skill, knowledge, assurance, and understanding as in the management of the neuroses. Much of the success temporarily attained by those who treat the various diseases depends on the personalities of the therapists, and many of the vaunted "cures," both scientific and quack, derive their efficacy from the powers of their purveyors and the suggestibility of the patients. Conversely, many of the failures, particularly in the more fixed and narcissistic neuroses, depend not so much on the method of treatment or the ability of the physician as on the inaccessibility of the patients themselves. Finally, it happens not infrequently that the laboratory-trained, scientific physician stands abashed before his less learned colleague, and chagrined at the cultist and quack as he views his own failures and their successes, little realizing that his rigid "somatic" attitude cannot at present cope with problems of personality, and that, after all, the treatment of the neuroses is still considerably more of an art than a science.

If the psychologic approach to the neuroses is correct, then the only rational method of treatment should consist in the revelation to the patient of the unconscious mental processes which are responsible for his illness, in bringing into consciousness the repressed impulses which find vicarious satisfaction in symptoms. That is, he must be given insight into his condition before he can hope to make any adjustment to his difficulties. Superficially this sounds very simple; actually it is very difficult, because herein lies the crux of the whole problem. Many neurotics are highly intelligent and see the surface problem together with its many ramifications and implications, yet are utterly at a loss to resolve it. The neurosis is not a question of logic or syllogisms and no amount of intellectualization will solve that which is so deeply conditioned emotionally. That is the reason why even the most intelligent

neurotic is incapable of plumbing situations which are so obvious to him who brings the slightest objective judgment to bear on them. But adjustment is not always, or even generally, possible, not alone because many of the inner, emotionally-toned, conflicts are difficult to discover and resolve, but because most of the social and environmental factors are beyond the control of the therapist and many beyond the ability of the patient to mold to his own needs. It is a well-known fact, for instance, that many of the neuroses in children are directly dependent upon the neurotic behavior of mothers, who are themselves in need of treatment; and it is not always easy to dissociate the one condition from the other, let alone eliminate the source of the conflict. Nor is it possible for the therapist to do much for a neurosis which is precipitated or strongly conditioned by love and marital infelicity, profound economic distress or other situational difficulties, although it is not outside the province of therapy to try to alter, if possible, those external factors. But essentially the problem consists of the need of adjustment of the self to the environment and not the latter to inner conflicts. It is also worth recalling that every neurosis is a sort of compromise and, in fact, represents the most suitable attempt at adjustment of inner and outer conflicts of which the particular individual is capable. As the neurosis is also assumed to represent more or less a social-biologic "gain," it is question whether all the efforts on the part of the patient to get well really bespeak a desire to be cured. This sounds paradoxical, and if told to the patient not only appears contradictory but is resented as foolish and insulting.

One of the worst errors many physicians and most lay persons make is to tell the patient that he "imagines" he is sick. This is invariably resented by patients and at once attributed by them to lack of understanding on the part of the physician. The error is all the greater because there is a modicum of truth in it and carries with it the insinuation that

the patient makes believe. It is a great therapeutic sin, therefore, to tell the patient that there is nothing the matter with him: first, because it is not true, seeing that a neurosis is as much a disease as any other in the domain of medicine, and, second, because he will not believe it. When a person has psychogenic pain, headache, insomnia, vomiting or palsy, they are as real to him as if he had an organic disease. Indeed, most patients sincerely mean it when they say that they would rather have pneumonia or a surgical condition requiring operation than general "nervousness" which gets scant sympathy from either the family or the doctor. Not to take the patient seriously is to violate the first principle of psychotherapy. And it is absolutely useless to tell a patient, even facetiously, "You are crazy, there is nothing the matter with you, try to forget it." A patient with anxiety hysteria or an obsession certainly is not crazy, has a great deal the matter with him, and cannot forget it however much he tries. In fact, he is dreadfully afraid of insanity, death or some lingering disease, suffers a great deal from his symptoms, and comes to the physician just because he cannot rid himself of the ideas which plague him.

After taking as detailed a medical, social and psychoanalytic history as possible and making a complete physical examination, the patient may be assured, if such is the case, that no evidence of organic disease was found. But he must also be promptly informed that that does not mean to say he is not sick, that psychic or "nervous" disease is like any other disease, and that it requires as much treatment as any other medical condition. Attempt should be made to explain to him that psychic shock, sex difficulties, social conflicts, fright, worry, or anxiety are capable of causing "nervousness," and that mental upsets may be responsible for physical ailments of many kinds. One may illustrate this with a simple example, such as the reaction to the sudden threat of death, say, on being held up at the point of a revolver, which may consist

of trembling, pallor, cold perspiration, violent palpitation, belching, vomiting, diarrhea, and even fainting. This simple truth saves the patient's self-respect in that it takes away from him the uncomfortable onus of the unreality of his symptoms, and at once wins his confidence, which is the most powerful weapon the physician has in the treatment of the neuroses. The patient feels that at last there is someone who takes him seriously because he understands his condition. But while being sympathetic the physician must at no time become too intimate, descend to levity, or cheapen his own efforts or personality. It is not necessary to appear omniscient or take oneself very seriously, but the patient and the treatment must be so taken. Nor should the physician assume the attitude of a preacher and moralist who sits in judgment upon the patient. What he must do is to convey the impression, if possible make it a conviction, that he possesses sound insight into medical and psychiatric problems and that he has sympathetic understanding of human conduct. Finally, the examiner should be unusually careful in his choice of words or expressions because neurotics are especially prone to misunderstand and, what is worse, misinterpret what is said to them. Even the simple word *mental*, as applied to the patient's illness, is apt to be misinterpreted to mean insanity and to frighten or revolt an uninformed and oversensitive patient.

To be successful, then, treatment must be directed to the individual problems of the patient and should reckon with his special personality. Psychotherapy actually begins the moment the patient enters the office and both the detailed psychologic study and careful physical examination are directed to that end. The examination, in particular, is useful not alone for the purpose of excluding organic disease, but serves as an excellent therapeutic measure in that it convinces the patient that his complaints are seriously considered. Obviously, if, in addition to the neurosis, definite

organic disease is discovered, it must be promptly attended to and remedied, if possible; though too much emphasis must not be put upon that lest the patient seek refuge from his neurosis in his minor or major physical ailments. There is no objection, of course, to the use of medicines, though the less given the better, nor to electricity, massage, exercise, hydrotherapy, gymnastics, hypodermic injection, or what not, provided the physician is aware that he is thereby influencing the patient by means of suggestion. Indeed, with older, ignorant, unintelligent, and otherwise inaccessible individuals that is all one can do; but, as a rule, treatment with medication alone will not cure symptoms of psychogenic origin. Let no one delude himself into thinking that a hypodermic of cacodylate of soda or some high-sounding patented serum can cure a compulsion neurosis, or a few drops of the tincture of valerian clear up a deep-seated hysteric phobia. The conception is altogether too naïve and plays into the hand of the charlatan besides.

The irrepressible urge to find an organic basis for every neurosis has led many physicians to seize upon the highly overemphasized theory of focal infection and to attribute to it, without regard to laboratory or clinical experience, every conceivable mental symptom. Based upon very occasional causal relationship, but mainly upon accidental associations, great stress is laid on the removal of *foci of infections*, and many physicians give proof of their conviction by advising the extraction of teeth, excision of tonsils, washing of stomachs, irrigation of colons, or the performance of major surgical operations. Certainly, obvious physical conditions require appropriate treatment, but it may be positively stated that no hysteric phobia, compulsion neurosis, or delusion was ever cured by such indiscriminate measures; and it is equally true that all those treatments serve only to confirm the neurotic in his complaints and to perpetuate symptoms which could be more intelligently removed by psychotherapeutic measures.

It is not an uncommon experience to see chronically invalidated neurotics who have been repeatedly operated upon for nasal or sinus conditions which they do not have and others who have undergone numerous abdominal operations, for "ulcer" of the stomach, "chronic appendicitis," or "intestinal adhesions" when other diagnoses failed. Whatever measure of success does attend all those heroic treatments is almost wholly due to suggestion.

The treatment with extracts of the *glands of internal secretion* has a small place in the management of the neuroses. Despite the elementary truth that the whole subject is still in its infancy, that we have but few genuine extracts whose specific therapeutic action is experimentally determined, and that the very relationship of the endocrines to the neuroses is hardly more than theoretical, enthusiastic or deluded, and therefore very positive, therapists inject or prescribe polyglandular extracts for hysterias or obsessions and even attempt to "cure" personality by means of glands. Occasionally some neurotics do show signs or symptoms of disturbances in the functions of the glands of internal secretion and others of the vegetative nervous system. This is particularly true of the thyroid gland and sometimes of the pituitary. It is equally possible that deficiency in the internal secretion of the ovaries may be responsible for some of the symptoms of what is occasionally spoken of as menopause neurosis. Intelligent observation may justify in isolated instances the prescription of thyroid or pituitary extract, the extract of suprarenal glands, or corpus luteum in order to remedy, if possible, dysfunction of the endocrines, but it cannot be emphasized too strongly that the vast majority of the neuroses present no such obvious problems and that in the present state of our knowledge psychotherapy can more successfully cope with them.

Medicinal treatment has comparatively little value in the treatment of the neuroses and certainly no specific virtues; but, unfortunately, many physicians still give medicines merely

because it is the easiest way of handling situations which one does not understand. However, many neurotics, after having taken all sorts of medicines without receiving any benefit, look askance at prescriptions, and often refuse to take them because they are afraid of what they naïvely call "drugs" or "dope." In some cases it is necessary to prescribe a mild hypnotic, such as luminal, veronal, dial, allonal or other coal tar product, if a patient persistently complains of inability to sleep; but it is common experience that psychogenic insomnia does not yield readily to medication and is apt to lead to slavish dependence on drugs besides. Wherefore one should never prescribe a narcotic which will result in drug addiction. Neither the bromids nor chloral, except in very large doses, have hypnotic action, but they may be given for their sedative effect. Constipation deserves attention, but it is only playing into the hands of the patient to continue giving laxatives and confirming the neurosis by keeping up enemas. The ceremonious rituals of high colonic irrigation, so thoroughly exploited by enthusiasts inside and out of the profession, appeal to many neurotics who find in the manipulations pleasant temporary surcease from intestinal complaints. An occasional laxative, appropriate attention to diet and exercise, and when necessary effort to change the intestinal flora, all fortified by intelligent psychotherapy are the best methods of treating stubborn constipation. In general, the less medication the better the treatment of the neurosis. However, every prescription is efficacious in proportion to the amount of suggestion which the physician is capable of imparting and the patient of accepting.

No class of patients takes more readily to ceremonious *diets*, or more willingly makes a ritual of meals, than the neurotic. Considering how little is known of scientific dietetics in general, with the possible exception of a few specific conditions, and as far as we know how utterly inapplicable at present the whole question of diet is to the neuroses, one wonders how anyone

can seriously prescribe certain regimens and believe in their efficacy. That patients avidly seize upon prescribed diets only proves their suggestibility or their wish to receive concrete attention to their complaints, while the ritual which they adopt merely serves as an outlet for their compulsive neurotic traits. Therefore, to endow diets with virtues which they do not possess is, again, to play into the hands of the neurosis and to perpetuate symptoms. In general, it may be said that, unless there is a specific contraindication, such as nephritis, diabetes or some gastro-intestinal condition, or a particular anaphylactic sensitization to certain foodstuffs, a mixed and easily digestible diet is the best. In many instances the habitual elimination from their meals of certain kinds of food or the actual conditioning to various others makes a return to a normal diet quite a therapeutic problem.

Rest cures to a great extent have only the virtue of suggestion to recommend them. The Weir Mitchell treatment, milk cures, and a host of others so confidently heralded as specific methods of treatment, may have some value in exhausted, anemic, emaciated patients, but it is difficult to see how, aside from their psychotherapeutic effects, they can influence neuroses rooted in mental conflicts over inner and outer situations. Removal of the patient from the home may have temporary value, but does not solve difficulties which one has left behind and to which one must return. And since the patient carries with him his inner, unconscious conflict to whatever place of rest he may go, it is questionable whether sending him away is at all advisable except as a temporary measure. Nevertheless, in selected cases, sojourns at health farms, hospitals, sanitariums or well-known spas where "cures" are instituted, may be of benefit if for no other reason than that healthy exercise is prescribed, sound routine followed and the power of suggestion exerted. The last, obviously, is the sole ingredient in the mixture of hokum dispensed as miracle

or faith cures at various religious places of pilgrimage and in temples of health of lesser religious therapeutic cults.

Suggestion is undoubtedly the most powerful weapon in the hands of the therapist. Without repeating what has been said in the chapter on the Etiology of the Neuroses with respect to the nature of suggestion it may be regarded, so far as therapy is concerned, as a relationship of doctor to patient based upon emotional factors. It is what Hart aptly describes as "affective therapeutics," in contradistinction to persuasion which may be designated as "intellectual" therapeutics. Not that an emotional factor does not enter into psychoanalytic transference, which is the therapeutic weapon of that method of treatment, but in suggestion no attempt is made to determine the nature of the relationship between doctor and patient or analyze the dynamics of symptom-formation; nor does it involve the acceptance of a particular theory of the neuroses. Whether it be a prestige and herd phenomenon as McDougall believes, or a libidinal state based upon the father ideal as psychoanalysis holds, suggestion is a psychologic process which influences thought and action without regard to conscious reasoning and therefore exerts a beneficial effect on some of the neuroses. But it must be stated at once that while suggestion cures symptoms, or rather removes them, it does not actually cure neuroses. Unlike hypnotism, however, although suggestion is merely the waking form of it, it does not give rise to a true substitution neurosis. Suggestion is most effective in some of the transference neuroses, namely hysteric anxiety, phobias and conversion signs or symptoms. It has very little or no value in the so-called actual neuroses, that is, anxiety neurosis and neurasthenia, and not the slightest effect on hypochondriacal symptoms. It certainly has no influence on what are known as the narcissistic neuroses and none, of course, in other psychoses. Nor are the vast majority of compulsion or obsessional neuroses at all amenable to suggestion. Occasionally monosymptom-

atic hysteria is cured by suggestion or hypnotism, even though the essential unconscious mechanism has not been affected; but in all neuroses subject to this form of therapy, whatever their nature, individual symptoms can be removed for longer or shorter periods of time. Not infrequently, however, other symptoms crop up to take their place. During the war this method was the one most commonly employed and was highly successful in a great many cases, possibly because the symptoms were themselves the result of suggestion and conditioned by fairly specific factors. It matters comparatively little in what form suggestion is given provided there is sufficient "rapport," that is the patient is in a receptive mood and the therapist has abundant assurance and self-confidence. Whether it be a verbal suggestion or it is embodied in a prescription, faradic brush, hypodermic injection, a magnet or some pious ritual the effect is the same.

Hypnotism embodies practically all the principles of suggestion, except that it involves a much deeper state of dissociation, and does not employ merely a waking rapport. To get a patient into the hypnotic state it is first necessary to concentrate his attention and restrict his field of consciousness until he is in absolutely submissive rapport with the hypnotist. The depth of the hypnosis may vary from slight unconsciousness to the somnambulistic stage, anesthetic dissociation, or the complete catatonia which is known as waxy rigidity. As a rule it is not necessary to go beyond the first or, at most, the second stage, but in all there is a deep state of suggestibility and a capacity for post-hypnotic amnesia. Depending on the suggestibility of the patient and the method preferred by the hypnotist, hypnosis may be induced by word of mouth, looking at a mirror, concentrating upon a small object, stroking or otherwise soothing the patient to sleep. Once the patient is under hypnosis suggestion is given for the disappearance of symptoms. The object, as in waking suggestion, is to remove by hypnosis that which has been presumably engend-

ered by suggestion. Aside from the fact that not every patient is hypnotizable, although suggestibility is so universal a phenomenon that nobody is altogether free from it, most neuroses do not require hypnosis for their treatment and a great many yield to the simple waking suggestions alluded to before. It is also important to realize that hypnotism is itself an artificial neurosis, that is, an induced hysteria. Hypnosis does not attempt to get at the root of the mental difficulty, although early and completely forgotten memories can be recalled; it does not resolve inner conflicts, it creates a state of mental dissociation, and, in effect, substitutes one neurosis for another. That is why it has been gradually discarded for other and more useful methods of treatment. The fear that hypnosis may do harm is not well grounded; nor is it true that vicious suggestions can be given during the hypnotic state by unscrupulous persons, which the subject must on awakening carry out despite his better self. None the less the spectacular exploitation of weaklings as subjects by professional hypnotists can only bring further disrepute to a method which is very useful in the hands of reputable and competent physicians in well selected cases. In any event absolute confidence in oneself and in the method is essential if one would achieve any measure of success with it; and all methods of suggestion are valuable, important and successful in cases which are not amenable to other forms of treatment. Hypnosis is a very useful experimental method for the study of hysteric amnesias and other dissociations of personalities, and can be made use of in the treatment of those conditions.

Persuasion, readjustment, and reëducation are known as the "intellectualistic" methods of therapy and have been to a large extent employed by Dubois, Dejerine, and their school. By persuasion is meant an appeal to reason, to conviction, to moral and other sentiments. The method involves, so to speak, an intellectual demonstration that the symptoms are "unreasonable," that they are "wrong." An attempt is

made to explain in terms of logic the nature of the disability, to exert moral guidance, to reëducate the patient, to adjust him mentally to his conflicts, to reintegrate the personality, and to bring the individual into harmony with his environment and the demands of his personality. Attempt is further made to reinforce powerful sentiments, such as family pride, self-respect, strong personal affection, patriotism, deep personal interests, and so forth. Now, it is quite possible that this method is of some value in a very few, simple, superficial neuroses, but it is perfectly obvious that the majority of them are deep-seated, emotionally conditioned and, in the main, unconscious, and not at all amenable to conscious logic or reason. What strikes one most forcibly in the management of patients is that at best they cannot, and at worst they are unwilling to, see reason; that the vast majority cannot, if they would, be objective with regard to themselves; that no amount of "reasonable" persuasion ever avails in the face of what is so utterly "unreasonable." As a method, therefore, and as a psychopathologic approach, the schools of Dubois and Dejerine have not only little to recommend them from a purely theoretic point of view, but actually contradict all facts of clinical experience. Leaving out of consideration the fact that such a theory involves the questions of morality and free will, it carries with it almost a complete denial of whatever truth there is in the view that organic changes underlie many of the symptoms of the neuroses and brings the neurotic dangerously near the malingerer besides. And yet there is no doubt that some measure of success does attend the "intellectualistic," persuasive method. The inference is therefore warranted that another factor enters into the treatment. This undoubtedly is suggestion. Actually it is difficult to conceive how one can dissociate the effect of this universal emotional rapport between physician and patient however much one tries to reason and persuade. Certainly the Dubois method of treatment was unadulterated suggestion

emanating from the kindly, understanding "father," even though he clothed it in explanations which innocently sought to conceal the fact now so obvious to others. Granted the validity of the more dynamic explanation one may employ, so far as possible, the method of "persuasion," after one has succeeded in analyzing to some extent the nature of the neurosis, and to fortify with suggestion the appeal which cannot be made by reason alone. As to rehabilitating or *reconditioning* an individual in the sense that the neurosis represents the end result of a complicated series of *conditioned reflexes* which can be split up into their component parts, there is such a theoretic possibility and in isolated instances even practical verifying experience. I have seen at least one pronounced phobia, which consisted of an intense dread to touch or even look at fish, treated by Dr. L. V. Lyons with persistent conditioning over a period of months to drawings of fish, wax models and so forth, until the patient lost all her piscatorial fears. Presumably one could little by little habituate a patient to ideas, things and situations which cause intense anxiety, as Watson has claimed; but ordinarily this method fails and other psychotherapeutic measures are much better weapons.

It has already been stated that not all the neuroses are amenable to psychoanalytic treatment and not all patients are capable of being analyzed; but psychoanalytic insight can be brought to bear on every case and the technic modified to suit different conditions. Anxiety neurosis definitely due to specific situational factors can often be cured by explaining to the patient the psychosexual dynamics of the illness and correcting the precipitating errors. Coitus interruptus should be interdicted, even though many persons who practise it do not suffer from anxiety, undue sexual excitement without normal outlet should be avoided, and simple methods of prevention of conception taught to neutralize dread of pregnancy which precludes normal sexual gratification. Obviously

the physician cannot solve for his patients the difficulties of enforced and unendurable abstinence, or remove the conflict engendered by a husband's impotence or ejaculatio precox, or a wife's frigidity or anesthesia; but the problem can be brought to the surface and left to the patient for adjustment. The anxiety precipitated in adolescents by fear of the consequences of masturbation or that occasionally resulting from its abrupt cessation can generally be dissipated by frank discussion and intelligent explanation. In addition, the patient should be given repeated assurance that he will not become insane, die of heart failure, or succumb to another dread disease. Mild sedatives, namely bromids and chloral, to diminish irritability, and hypnotics to induce restful sleep, may be given for a brief period to patients suffering from anxiety neurosis. In those cases where these measures bring no relief the probability is that one is confronted with a more complex type of anxiety hysteria.

Neurasthenia in young patients may be improved, possibly even cured, if they can be prevailed upon to discontinue masturbation and encouraged to find normal sexual outlet. The former is much easier than the latter. The lack of energy and initiative and the feeling of insufficiency often permit of no more than abortive efforts which are promptly followed by the resumption of masturbation. The patient may be referred for prostatic massage or other treatment if the local condition of secondary congestion demands it. Older neurasthenics, who have traveled the vicious circle for years, cannot be helped very much and certainly not cured. In any case, their state of mental health varies directly with their degree of potency. But if many neurasthenics cannot be cured they can at least be kept out of the hands of quacks who mulct this most gullible class of patients. Medication is of no value, though there is no objection to pituitary extract and small doses of strychnine where a tonic is indicated or a little bromid and chloral when there is excessive irritability. I

doubt whether any neurasthenic, or other impotent individual, ever really profited from cantharides, yohimbin, or other drugs which have acquired the false reputation as aphrodisiacs in the days of more innocent therapeutics.

Hypochondriacs are the most difficult patients to treat. Their symptoms are so deep-rooted that they yield to practically nothing. Whether they have a true neurosis or a mild psychotic state, they are intensely preoccupied with their bodily ailments, are not influenced by any form of suggestion, are not accessible to psychoanalysis, and medication has no effect on them. Patients with narcissistic neuroses or other borderline cases also present grave and insoluble psychotherapeutic problems. These obviously are not fit subjects for psychoanalysis. They are not only medical but also serious social problems, even though, or perhaps because, they are not sufficiently psychotic to warrant institutionalization. In such instances the best one can do is to try in some measure to adjust the patient to his occupation and environment. Generally this is difficult and frequently impossible.

The treatment of traumatic neurosis differs little from the management of other neuroses. Medicinal treatment usually has no effect, but there is no objection to symptomatic medication. Electricity, massage, hydrotherapy, and other concrete methods, in so far as they embody the idea of suggestion, are of value, especially in individuals who are not amenable to more refined psychologic methods. Where the questions of compensation and litigation are involved prompt and equitable adjustment, as a therapeutic measure, should be encouraged. This is even more imperative in cases of traumatic hysteria, although these are more accessible to suggestive and other psychotherapy. In any case every effort should be made to readjust the patient and encourage him to return to gainful employment as soon as possible. The advice is much simpler than its execution because, aside from other deterring reasons, many a patient finds it impossible to return to the

occupation at which he sustained the accident. However, most of them can be restored to health even if some are never cured.

The treatment of psychic impotence presents another very difficult psychotherapeutic problem. That occurring in neurasthenia is more stubborn than the one dependent upon hysterical mechanisms for its existence. The latter is amenable to suggestion and favorably influenced by psychoanalysis. True frigidity in women, which is undoubtedly homosexually determined, is almost hopeless; hysterical anesthesia, while not nearly so fixed, is also very resistant, but can be overcome, at least to a great extent, by means of analysis and reeducation. Women having normal desire but no orgasm have the best chances of recovery with proper treatment. In any case frank and intelligent discussion will often succeed in thawing out women whose prudery and ignorance have stood in the way of their free expression or fear of pregnancy frustrated normal gratification. The questions of divorce in the case of impotent husbands or incompatibility in the case of frigid wives which are sometimes presented to the physician for solution cannot be lightly passed upon by him. There seems to be ample justification for divorce where impotence is permanent and the couple young and certainly for dissolution of marriage in those cases where the man knew of his weakness beforehand. While frigidity and sexual anesthesia do not preclude sexual intercourse they always lead to incompatibility, frequently to infidelity and sometimes to divorce. Both those questions have social, ethical, legal and economic aspects which are generally debatable and always complex, but the medico-psychologic is fairly simple although it cannot well be solved without regard to the other phases of the problem. In any event the physician cannot decide for patients problems which they must solve for themselves.

Another problem, this time medico-legal, is the question whether abortion is justified in the case of neuroses which are

either precipitated or aggravated by pregnancy. The question is not difficult to answer when it is a matter of an acute psychosis or a very severe neurosis. In such cases interruption of pregnancy is not only justified but definitely indicated. It is different however when an acute anxiety hysterical condition is precipitated by an unwelcome conception. Whatever advanced views on ethics the physician may hold he cannot, owing to legal restrictions, sanction an abortion, unless the neurosis becomes sufficiently grave to threaten the patient's health. Pernicious vomiting, even though it be definitely hysterical, obviously justifies interruption of pregnancy.

Psychoanalysis.—The cases which lend themselves best to treatment by psychoanalysis are those grouped under the transference neuroses, namely, anxiety hysteria, conversion hysteria, hysteric phobias, and compulsion neuroses. Of these, the first two offer the best chances of cure; the third is favorable provided it has not lasted too long and become unduly fixed; the last is not unfavorable as far as the removal of symptoms is concerned, but not so favorable with regard to complete cure. The depth of the regression, the intensity of the unconscious homosexual trends, and the close relationship to narcissistic, more particularly schizophrenic, neuroses, do not permit of the complete resolution of compulsion neuroses even after years of analysis. The reason why, in general, the transference neuroses are most favorable to treatment is that the patients are capable of shifting their primitive, infantile, unconscious emotional attachments onto persons and to identify themselves and others in phantasy with the psychoanalyst. Transference may be considered as a "love relationship" between patient and analyst, and, as will be seen presently, it is practically the sole mechanism which the psychoanalyst utilizes in bringing about a cure. The capacity for transference is a normal characteristic intensified in some of the neuroses and accentuated during the analysis, although it frequently takes the negative form of

resistance. As has already been pointed out one may see in suggestion a disguised or alloyed form of transference. The former too is an affective and universal phenomenon which is particularly intensified in hysterics. But whereas this property of the human mind is made use of in all other forms of psychotherapy the analyst does not employ it, indeed seeks to avoid it. Whether or not he succeeds altogether is still a debatable question.

In order to practice psychoanalysis one must be well trained and properly qualified. Some uninformed physicians and many other would-be therapists practise psychoanalysis and bring the art into disrepute even if they do not harm the patients. A number of practitioners, honest and otherwise, read a little of the psychoanalytic literature, bandy a few of the more popular expressions, and think they can practise the art. But while many do, few are competent, and fewer are successful. The first and perhaps most important requisite for one who would devote himself to psychoanalysis is that he submit to a personal analysis, both for the purpose of acquiring technic and of solving, or at least gaining insight into, whatever unconscious conflicts he may himself possess. The latter is of great practical importance because the analyst may unwittingly bring his own conflicts into those of the patient and thereby complicate if not bungle the whole treatment. While it is possible that an unusually well-adjusted person gifted with acute insight into human motives may be able to practise without a preparatory character analysis, in general one cannot learn the technic from books, lectures, or seminars alone. The next step is to master the theory of psychoanalysis and acquire a sound knowledge of the whole psychoanalytic literature.

Every analyst should have both theoretic and practical knowledge of psychiatry, the latter to be derived from contact with patients. This is of paramount importance, as the question of diagnosis of various neuroses from one another

and of them from borderline cases frequently comes up during the course of the analysis. He should have a sound knowledge of psychology, a fair acquaintance with good literature, passing knowledge of the classics, and especially mythology, and keep moderately abreast of current cultural trends. In other words, he should be an all-around, well-informed man, a person of sound education and culture, and have healthy interests in social progress and the advancement of human knowledge. He must be possessed of sound common sense and have good, native insight into human conduct. He should possess a genuine sense of humor, which I believe is the best index of intelligence. Withal he must be a man of good character, ethical conduct, and kindly, yet strong, personality.

In order to be successfully analyzed the patient, too, must have a certain number of qualifications. First, he must realize that he is sick and have suffered sufficiently from his neurosis to desire a cure. Many patients say that they would like to get well, when, in reality, they have sufficient gain from their neurosis not to want to part with it. In other words, the patient must seek treatment and not have it thrust upon him. He must have some education and enough intelligence and insight in order to coöperate properly and to profit from the analysis. He must not be too old, at least not too rigid in his ways and too set in his views. Analyses after the age of forty or forty-five become increasingly difficult, although the chronologic age alone is not the sole criterion. As the accepted form of treatment takes a minimum of six months, generally a year or longer, and an hour daily, five days of every week, the patient must be prepared to make considerable sacrifice of time and money. Before sending a patient to an analyst or undertaking treatment he must be informed of all the difficulties, so that he does not enter upon an analysis lightly or under false pretenses, then discontinue it after a few weeks and say that it was a failure. If he realizes the extent of the expenditure of time, energy, and money

involved, and still desires treatment then he may begin his analysis. The requisites for the analysis of neuroses in children are not quite so numerous nor the criteria so rigid. Indeed one must depart considerably from the accepted standards applied to adults and vary them to suit each particular case. It is quite possible that female psychoanalysts do better with children, but there is some doubt whether they can resolve the transference of all adult neuroses in males as well as men analysts.

This is not the place to describe the *technic of psychoanalysis*; nor can one learn from any description how to practise the art. It can only be acquired from actual analysis of patients and frequent discussions with more experienced colleagues of the difficulties encountered. In any case the reader is referred to special works for more extensive knowledge of the subject. Here only the briefest outline will be given. But before saying what psychoanalysis is, it is perhaps important to say what it is not. First, psychoanalysis does not consist of talking to the patients, lecturing, preaching, or moralizing. It does not consist of psychologizing, explaining the meaning of symbols in stereotyped fashion, or bewildering the patient with abstruse theoretic terms or highly involved speculations and telling him that he has an Oedipus complex, a castration complex, or a host of other complexes. It does not consist in telling the patient that he is an unconscious homosexual or that he must live down other equally unconscious perversions. It does not consist in forcing the patient to accept any interpretation which he is not ready to receive. The competent analyst does none of those things. It is the patient who literally analyzes himself. The whole aim of the analysis is to permit the entry into consciousness of the significance of the repressed impulses which are disguised as, and find vicarious gratification in, the symptoms of the neurosis. The analyst does not direct the patient what to say or not to say, lays down no rules except a few general ones, lets the patient

express anything he wants to in any way he wants it, and does not betray to him an undue interest in his cure. The analyst merely "listens in," interpolates a remark here and there, interprets the meanings of symbols and the significance of dreams, and points out incongruities of speech or conduct. In short, he encourages the patient to make free associations, to free the repressed impulses of their emotional investment and to "abreact" or "spill over," as it were, the affective energy attached to painful ideas. But he does more than this. Originally the "cathartic" method alone was employed, now, the analytic method goes a step further and seeks to bring about a reintegration of the dissociated mental processes, a reshifting and reshunting of the affect into constructive channels. That is, besides analysis there is also synthesis, which is spontaneously arrived at by the properly analyzed person.

The first hour is devoted to giving instructions in the method of treatment. The patient is told in advance that psychoanalysis differs from all other methods of treatment in that he is to make free associations, that is, do the talking, and that the analyst will merely interpolate explanatory remarks. The patient is to lie down on a couch, the analyst sitting beside him at the head of it. In the beginning it is wise not to take notes, later on one may. The patient is to talk freely and express everything that comes to his mind. He is not to direct his attention to any particular subject, choose what to say, discard what he thinks is unnecessary or beside the point, or conceal any thought. Nothing is irrelevant; nothing is good or bad, moral or immoral, decent or indecent. Literally every thought that comes to mind must be at once expressed. At first the patient finds this difficult and wonders what it all has to do with complaints which are so remote from the indifferent thoughts which crop up. At times he is reticent or even ashamed of the associations, and he keeps quiet for minutes at a time, saying that nothing comes to his mind;

that is, he is resistant. After a while, if he is honest and sincere in his efforts, and as he overcomes his resistance, the associations become more and more free. What appeared so irrelevant and meaningless is beginning to have significance. Early memories well up, old behavior is recalled, forgotten emotional experiences are revived and relived. Then dreams are brought and their contents analyzed, their significance appreciated. Dreams are forgotten and recalled, scraps of dreams are related as bizarre and irrelevant, but all play some part in the mental economy. The dreams represent the best material from the unconscious reservoir, but by no means constitute the whole production during free association.

As the analysis progresses the patient begins to identify himself with the analyst and also identifies the analyst with father and mother, brother and sister, or other persons with whom the patient had identified himself in his phantasy and childhood. He shifts onto the analyst emotional tones belonging to himself or previously attached to others. He loves and hates, rages and spites, resents and submits, detests and adores, is sullen or effusive; but all the while clings to the analyst who is the recipient of those emotional reactions. This is known as *transference* and is a true love relationship, however ambivalent it is. As long as the transference is favorable it is characterized as *positive*. Craving sympathy, the patient brings to the analyst a peace offering, as it were; he gives up his neurosis and the symptoms are resolved into the transference situation. But when the situation becomes unfavorable the transference becomes *negative*. This negative transference is known as *resistance*. When in a resistive period the patient makes no free associations, brings up no valuable material, talks ceaselessly without revealing any complexes, is sullen toward the analyst, quarrels with him, or altogether refuses to talk. He calls the analytic interpretations stupid, far-fetched, or ridiculous and otherwise becomes captious. Whatever improvement in the neurosis occurred up to this time melts

away, old symptoms are revived or new ones developed, or there is a suspiciously rapid cure of the neurosis. The patient comes late for some of his appointments, fails to keep others altogether, or stays away days at a time for no very good reason. All of which is evidence of inability to overcome inner resistance and lack of desire to give up the neurosis, that is, to get well. By skilful management, however, the analyst succeeds in pointing out the significance of the behavior, in interpreting the meaning of the resistance, and in reestablishing a positive transference. The ability to handle both positive and negative transference is a measure of the skill of the analyst and an index to the possibility of ultimate cure. Sometimes the resistance against one's own unconscious strivings or to the analyst is so strong, that is, the inner threat is so great, that the patient breaks off the analysis. Not infrequently the patient forsakes the analyst and returns to his family physician or seeks analysis elsewhere. But at no time during the course of the analysis should another physician treat the patient, because it means the shifting of transference away from the analysis into other channels and the weakening or the nullification of the efforts of the analyst. So far as possible family relationship must be so arranged as not to interfere with the progress of the analysis. The analyst must ever be on his guard against the possibility of intensifying resistance by injecting his own *counter transference* into the analysis.

As the analysis proceeds, deeper and deeper layers of the unconscious are uncovered, primitive impulses find outlet, infantile phantasies are revealed, the meaning of symptoms becomes clear, incongruous conduct becomes apparent, and affective tones attached to various neurotic manifestations are dissipated or abreacted. Generally, the mere bringing to the surface of all the emotionally-charged associations serves to "free" the symptoms and the patient finds that he no longer clings to them. They cease to have an emotional hold

on him and thus vanish. But what is more important he begins to understand their meaning, to gain deep insight into the dynamics of symptom formation. He learns the significance of intense attachments, of infantile ways of gaining ends, of refusal to face reality, of the nature of flight into sickness. He begins to understand what it means to get well. But this is not yet the end of the analysis. There still remains the transference to the analyst which is in essence a *substitution neurosis*.

The next, and final, step consists of the effort to free the patient from his attachment to the analyst, that is, to resolve the substitution neurosis. It is sometimes very difficult to dissolve a transference neurosis because the patient cannot easily be made aware of the nature of the libidinal impulses which are concealed by his resistance. The object is to take away the props on which he is leaning and literally to educate him to face the world of reality on his own feet. This is accomplished gradually by analyzing the transference situations and showing the patient the futility of clinging to the analyst for support. The latter then ceases to represent the whole world of reality onto whom all the infantile neurotic phantasies were attached throughout the treatment. By degrees the patient learns to shift his interests away from the analyst to the world of objective reality; he sublimates the primitive impulses surcharged with energy, and learns to face situations in an adult manner. The process of sublimation is particularly important. By means of this the patient directs the energy, which hitherto went toward the formation of the neurosis, into moral, intellectual or artistic channels, or others which are socially and individually useful. A successful analysis, then, consists of a reëducation, reconstruction, reintegration, and reorientation of the whole personality. The patient is rid of his neurosis, he gains a sense of reality from the upbuilding of his real ego in relation both to his unconscious and his super or ideal ego, and emerges prepared

to meet difficult situations, to make his own adjustments to reality, and to face life in general in an objective manner.

Not all, or even very many, analyses end in this theoretically ideal way and certainly not all patients who submit to the method are cured by it. Psychoanalysis is by no means a perfect therapeutic weapon and obviously is incapable of altering character or transforming personality. The not uncommon practice of carrying on analyses for years bears witness not only to the depth of the neuroses but to the limitations of the method and the imperfections of the technic. It is even a question whether a patient who shows no reasonable progress within six months and no promise of definite cure within a year had not better be let alone. To my mind there is no good reason for keeping up for years either a primary or transference neurosis which shows no signs of disappearing and none for an analyst to begin a new analysis after another good therapist has already conducted one for months and months. But in the hands of a competent analyst there is no contra-indication to treatment and no danger in the method. A venal analyst may unduly prolong the analysis, an incompetent one shorten or bungle it before he has cured, and an unscrupulous one take advantage of his patient. If the analyst has the qualifications outlined above these contingencies are impossible. But the psychoanalyst should be on his guard at all times, because there is occasional danger of disorganizing a person or precipitating a psychosis by means of analysis. I have seen dementia precox sent galloping on by analysis and suicide hastened by too rapid and too deep probing of depressed patients. In those cases where the existence of definite schizophrenia or manic-depressive psychosis is discovered in the course of analysis, the psychiatrically well-trained therapist will proceed very slowly and very cautiously, or altogether cease probing into the unconscious so as not further to disorganize the individual. Instead of taking away libido from the patient the analyst will supply

it, so to speak, and he will try rather to reconstruct the personality and make use of psychoanalytic principles to synthesize it. The analyst must retrace his steps, help and encourage, supply props, as it were, and as quickly as possible conclude the analysis.

APPENDIX

HISTORY AND EXAMINATION OF PATIENTS

In no branch of medicine does a correct diagnosis, no less than successful treatment, depend so much upon a detailed and accurate history as in the field of mental disease. Whereas in other conditions taking a history is merely the necessary preliminary of a physical examination, in the case of the neuroses and psychoses the whole examination practically consists of taking a history, observing the behavior of the patient, and interpreting the significance of both. It is important, therefore, in order to gain thorough insight into the mental state of a patient to become acquainted not only with the nature of his complaints and the immediate facts of the case but to delve into his previous general and developmental history and inquire into social, familial, and other environmental situations. For this purpose a systematic examination based on a sound knowledge of psychiatry and psychoanalytic method is necessary. All this can be acquired only through scientific discipline in the practical examination of patients; and it is no exaggeration to say that the ability to take a good history is not alone a measure of one's skill and experience but the best index to one's understanding of mental conditions no less than to one's ability as a therapist. A complete mental examination takes many hours and the observation frequently has to be extended over a number of days or even weeks before accurate insight can be gained into the more complex nature of the neuroses or the psychoses or a final diagnosis arrived at. It is at all times unwise, therefore, to jump at conclusions. But if in addition to eliciting facts one brings also a dynamic approach to bear on them, an

ability to see psychologic motivation behind thought and action, and does not merely visualize a meaningless array of unrelated complaints, then one may venture a tentative opinion even after the first examination. It is needless to add that a complete record should be kept of the first consultation and additional notes made of subsequent observations.

A mental examination actually begins the moment the patient enters the consultation room. Even before any questions are asked the examiner should observe the behavior of the individual, the expression on his face, his general attitude, and his emotional reaction. It is always wise, particularly with neurotics, to let them state their complaints in their own words and note them down verbatim, without any attempt at interpretation. One patient may complain of severe pains or terrible headache with a smile on his face, another bemoan loss of memory by reciting with meticulous accuracy innumerable details of his ailment or read from notes complaints which he fears he may otherwise forget to relate, and still another fail to tell what ails him most yet talk all the while of obviously minor symptoms. After the patient has told his story without any suggestion on the part of the examiner, a number of questions may be put to fill in the gaps in the history. It is particularly important to ascertain if possible the exact date of onset of the illness, whether it set in abruptly or gradually, what was the nature of the first sign or symptom, whether the condition is better or worse, constant or remitting, and whether there were previously any similar episodes. Obviously an acute depression or mania differs from one with a gradual onset and a slowly progressive course, a sudden anxiety from a lingering delusional state of the schizophrenic, and a remitting neurosis from a continuous psychosis. It is also well to ascertain whether there were any immediate precipitating factors, such as mental and emotional upset or trauma. In the case of trauma to the head the question of unconsciousness and its duration, the

occurrence of convulsions, bleeding from the ears, eyes, nose and mouth, subsequent headache, memory or personality defects, and the length of the interval between the date of the injury and the onset of the symptoms must all be investigated. The question of trauma may have particular importance in cases involving litigation.

The nature of many of the subjective complaints frequently needs investigation. Does the patient mean headache when he complains of it or does he refer to pain in the scalp or a peculiar boring sensation? Does the patient have true vertigo when he complains of dizziness or does he mean "nervousness," fear of falling, fullness in the head, swimming before the eyes, or what not? True vertigo consists either of a subjective sensation of turning or falling or of the perception that objectively the floor, ceiling, or house are turning about the person. It is accompanied by a tendency to stagger or fall, occasionally by nausea and vomiting, and sometimes by pallor or sweating. Generally the patient assumes an optimum position, either sitting or lying, in his attempt to overcome the vertigo. With reference to insomnia it is important to know whether the patient takes hours to fall asleep then rests undisturbed, whether he wakes up several times a night, whether his slumbers are disturbed by dreams, or whether he does not sleep at all. Frequency of urination, especially at night, may be of grave significance or merely indicate a neurosis which impels one to pass repeatedly small quantities of water (pollakiuria). It is important to inquire into general habits, particularly with reference to excessive use of alcohol, tobacco or coffee; also appetite, thirst, constipation, gain or loss of weight. Has the patient merely loss of appetite or does he refuse food because he wants to die, fears that it may harm him, or that it has been tampered with? In the matter of unconsciousness or convulsions it is necessary to find out whether there was tongue-biting, incontinence of urine, tonic or clonic twitchings, injuries, post-convulsive headache,

somnolence, and amnesia. Many a neurotic complains of fainting when he means faintness and many a hysteric of fainting spells during which he evidently hears and knows what is going on about him.

In the case of children or adolescents a developmental history is essential. Full term or premature birth, normal or instrumental delivery, asphyxia at birth, age at teething, closure of fontanelles, beginning of walking and talking, convulsions in infancy or childhood, bedwetting, irritability, tantrums, nightmares, progress at school, behavior at home, destructiveness, pugnacity, frankness, sociability, playfulness, childish masturbatory acts, sleeping in the same bed with parents or siblings—all these are questions which may have significance in the history of the neuroses. While the question of consanguinity has, as far as we know, no definite bearing on the occurrence of mental disease, the presence of neuroses and psychoses in parents, grandparents and collaterals (heredity) or in brothers and sisters (familial) has considerable significance. In female adolescents the date of onset of menstruation should be inquired into; then its regularity, duration of the period, whether scanty or profuse; finally, prolonged cessation, artificial or natural menopause. Inquiry should be made whether the patient's reaction is sociable, whether he or she has many friends, goes out much in company or is seclusive, stays at home and mopes, and reads a great deal. It is also important to know whether the individual is talented, ambitious, energetic, holds a position, is responsible, interested in things outside his occupation, is suspicious, moody, irritable, hypersensitive, stingy, meticulous, stubborn, bashful, jealous, superstitious, or excessively religious. It is necessary to investigate the relation of the patient to parents, especially intensity of attachment to mother (sometimes antagonism), the attitude to brothers and sisters, and the relation of husband and wife, particularly social, intellectual, and sexual compatibility. The attitude of parents to "only" children, more

especially of the mother, and vice versa, is worthy of attention, because of the significance of too intense attachments and concealed or expressed antagonisms. Economic situations, too, should be inquired into. Obviously it is important both from a general medical and psychiatric point of view to know what previous illnesses or operations the patient had.

Investigation of the sexual life of the patient requires knowledge, skill, and tact. All discussion of sex should be frank, straightforward, unaccompanied by pruriency, cant, or morality. The patient must feel that he or she is in consultation with a person who has understanding of human conduct, that there is a sense of security in the presence of one who is neither preacher nor judge. Questions of sex should never be discussed in the presence of a third person, and the patient must be convinced of the secrecy and absolute inviolability of the confidences revealed during a consultation. Indeed in the examination of neurotics it is always well to exclude other persons, be they relatives or friends, although one should never make a physical examination of women, especially hysterics, except in the presence of a third person. Boys and men should be asked directly whether they masturbate. A simpler expression may be used in case they do not seem to understand the question; in any case self-gratification is infinitely more descriptive and less odious than self-abuse. In order to forestall a possible denial and prevent excessive shame or anxiety it is well to assure the patient that masturbation is not an "awful" habit which leads either to physical deterioration or moral perdition, that, unwise as the continued practice is, most people have indulged in it at some time during their progress from boyhood to maturity. With girls and women the same question should be put a little more tactfully, but ultimately no less directly, again assuring them that, if anything, it is even less hurtful, and certainly no more sinful, than in men, in order not to engender anxiety. The question of prevention of conception and especially coitus interruptus

should be intelligently discussed. The question of potency and libido should be put frankly to men, and that of desire, gratification and orgasm no less frankly, if more discreetly and tactfully, to women. All sexual problems can be discussed in an intelligent manner with every patient and their significance frankly evaluated provided the examiner has no resistances of his own to overcome and the subject is neither overemphasized nor made ridiculous. This is particularly true of perversions whose discovery is much more difficult, first because the frank pervert as a rule does not feel the need of discussing the matter with the physician and, second, the vast majority of others who indulge occasionally generally feel too reticent to talk about it.

Very often patients complain of a great many minor signs and symptoms without revealing that they are anxious about dying, that they dread insanity, heart disease, or cancer, or vaguely fear that some dire calamity will overtake them or some one dear to them. In those cases it is necessary to inquire specifically into the existence of anxieties, phobias, and obsessions. The patient may be afraid of dirt, germs, or sickness (mysophobia) and repeatedly wash his hands on touching what he believes are contaminated objects; he may have fears of open places (agoraphobia), of crossing streets and squares; he may fear closed places (claustrophobia), being in halls, riding in cars, trains or subways. He may have compulsive ideas to count numbers, or windows of buildings, to touch people or things, to walk or spit in certain places, to repeat words and phrases in certain orders, to arrange clothing and furniture in peculiar ways. He may complain of doubts, indecisions, inability to resolve between opposing impulses (*folie de doute*). Whenever a patient with a compulsive (obsessive) idea is prevented from giving expression to it, or is deterred from carrying out his peculiar ritual, he invariably betrays intense anxiety. But characteristic of all anxieties and compulsions is the relatively good insight which accom-

panies them. Whereas the psychotic has absolutely no insight into his condition and his delusions or hallucinations are not only very real to him but brook no contradiction, the neurotic knows that his fear is groundless, that his obsession is ridiculous, and that his compulsive ceremonial is absurd, but he is utterly helpless before them. He does not understand their significance. But he certainly does not "make believe," imagine, or "talk himself into" symptoms, as superficial judgment occasionally leads one to conclude; unless of course he is a malingerer, in which case other evidence becomes necessary.

In the case of psychoses, and this is to some extent true also of the neuroses, much of the information must be obtained from others than the patient. A great deal of it therefore depends upon the character and reliability of the informant. Although it is generally wise to obtain the information in the absence of the patient, it is sometimes necessary to make the inquiry in his presence and even to confront him with facts which he is apt to deny. In order to get as accurate an outside history as possible it is well to insist on the uncolored description of what the patient actually did or said, on the verbatim repetition of expressed delusions or hallucinations, on the specific mode of emotional behavior, and not accept opinions or interpretations which may well be inaccurate.

It has already been said that a mental examination begins the moment a patient enters the consultation room: this is particularly true in the case of the psychotic. The way he walks into the examining room, the expression on his face, his readiness or refusal to shake hands (negativism) are of considerable diagnostic significance. Is the patient cooperative, spontaneous and frank in his expression, friendly or antagonistic, anxious or calm and indifferent, talkative or shy and retarded? Is he coherent in speech, circumstantial, evasive, flighty, distractable, irrelevant, and does he show peculiarities of expression? Does he express his mood by means of

gestures, mannerisms or stereotyped movements? Does the patient appear silly, dull, composed, perplexed, anxious, suspicious, agitated, or exalted? One can sometimes tell by the facial expression and general behavior of the patient whether he harbors delusions or is the victim of hallucinations. It is particularly important to note the spontaneous productions or stream of mental activity even before one tries to elicit responses to specific questions. It may be well to ask the patient why he came to the doctor and whether he thinks he is sick. The manic or paretic, for instance, may say that he "never felt so well in his life" and the schizophrenic that there is nothing the matter with him. The patient may even be asked whether he thinks he is insane. During the course of the examination one may note the repetition of words and phrases (echolalia), of nonsense words and neologisms (verbi-geration), of stereotyped movements (echopraxia), and of witticisms. A patient may show spontaneous catatonic attitudes or hold a limb indefinitely in an awkward position placed by the examiner (catalepsy).

The patient, particularly the depressed and melancholic, may harbor an intense feeling of guilt, have the delusion that he has sinned unforgivably, that he is worthless, that he ought to be punished, and that he deserves death. Such patients generally harbor the idea of suicide, sometimes express it openly and not infrequently make definite attempts, or refuse food in the hope that they will die. Therefore direct or indirect inquiry should always be made into suicidal trends. The patient may be asked whether he thinks life is worth living, whether he wants to get well and whether he thinks he will recover. One should be careful not to suggest suicidal ideas. Depressed patients suffer intensely and are always potential suicides; it is important, therefore, to exercise unusual vigilance. Psychotic patients, especially schizophrenics, frequently have ideas of reference, attach special meanings to the actions of others, think that people are trying to influence

them, or compel them to do wrong things. They may feel that they are being hypnotized, that their minds are being read or interfered with, that they are watched or followed, that electricity is being applied to them, that their food is being poisoned. The delusional ideas, or false beliefs, are so fixed and so impervious to reason that they are apt to arouse antagonism if doubted by the examiner; therefore they should never be contested. The patient may suffer from the delusion of infidelity, which is not an uncommon projection mechanism in the elderly and impotent. All delusions may be either vague or systematized, primary in paranoidal trends and secondary in depressions and other psychoses. Sometimes the delusions are neither absurd nor grossly improbable, but very logical, well-systematized, and quite plausible. This is particularly true of ideas of infidelity and persecution. In such instances it is imperative to corroborate or disprove the statements by outside testimony. In the presence of delusions of persecution it is well to find out whether the patient harbors ideas of litigation, vengeance, or murder. As most suspicious patients do not as a rule express delusions spontaneously or voluntarily, inquiry must be made directly or indirectly in order to elicit them. In all cases it is important to observe whether appropriate emotions accompany the various delusional ideas or whether there is dissociation between the intellectual content and the affective tone. The schizophrenic (dementia precox), for instance, may express violent hates without anger, talk of persecution without anxiety, express seemingly important thoughts with a snicker on his face, or even commit an atrocious act without a flicker of emotion.

A patient may or may not spontaneously express hallucinations, that is, the perception of false somatic sensations. Usually he does, but sometimes he merely betrays them in his attitudes. He may hear voices, see visions of persons or animals, taste unpleasant substances, smell peculiar odors, or feel abnormal sensations. Visual hallucinations are par-

ticularly common in acute deliria, especially the alcoholic variety. It is important to bear in mind that gustatory and olfactory hallucinations of a fleeting character are sometimes observed in organic lesions of the temporosphenoidal lobes, and that these "uncinate fits" occasionally occur as epileptic aura. The hypochondriacal symptoms of the neuroses are generally mild, but in the psychoses one may elicit very deep-seated delusions; for example, that the bowels, stomach or liver are dead, that they have been cut out, that the sex organs have been mutilated, or that other viscera have been torn and burned. Both delusions and hallucinations frequently coexist and one may bring either to the surface on judicious inquiry for the one or the other.

Many patients, in fact most neurotics, complain of loss of memory, which on careful inquiry proves to be no memory defect at all. They never really forget to keep significant appointments, to do things which are of genuine importance, even though they may fail to recall names and things. Because of preoccupation with themselves they do not pay attention and therefore do not remember. Now, memory consists of attention and association, retention, and spontaneous recollection. In actual memory defect there is no retention, no power of association of ideas in order that they be retained, and obviously no recollection. Each of these can be tested for. The patient is asked his name, age, address, the exact place and date of birth, the names of his wife, children or parents, the names of the days of the week and months of the year, the events of previous days, the names of important persons, of capital cities, of outstanding occurrences, and so on. He may be shown figures and asked to repeat them and told a word or name and a few minutes later asked to recall it. He is given at first simple, then complicated problems in arithmetic, told to read a story and relate its contents, and asked to write his name, date, and a dictated sentence. In all these questions the educational status and intelligence level of the patient

must be taken into consideration. Generally, memory for recent events is lost first and that for remote events preserved for a long time. Occasionally a patient fills in gaps in memory by concocting obviously false but fairly plausible stories. This is known as confabulation, and is characteristic of Korsakoff's syndrome. Disorientation as to time, place, and person is generally the result of marked impairment of memory.

This is not the place to describe the standard association tests of Jung nor to enter into a discussion of the technic of free association employed in psychoanalysis. The dynamics of the neuroses and psychoses have been considered in the previous chapters, and a knowledge of them is extremely helpful, if not imperative, in order to obtain a satisfactory mental history. Indeed it may be said that, aside from theoretical considerations, psychoanalysis is the most detailed and extensive method of taking a history. While the neurologist and psychiatrist can readily acquire the ability to make a psychologic test, the determination of intelligence quotients in mental defectives, in neurotics and psychotics had better be left to trained psychologists. The method of examination and the relation of mental defect to mental disease will be fully discussed in the next chapters. In making a mental examination it is well to speak the language which the patient understands best, because in no other field is it so necessary to make good contact with the subject and to avoid the possibility of misunderstanding both questions and answers. Finally, no mental examination is complete at the first session, and it is important to follow it up with subsequent consultations and continued observation. Only in this way can one gain complete insight into the patient's condition, and only comparison of written records of periodic examinations can measure accurately the progress of the case.

Every patient, no matter whether one is confronted with an obvious psychosis or an equally obvious psychoneurosis, should receive a careful neurologic and general medical

examination. In fact the more convinced one is that the condition is psychogenic the more elaborate the physical examination should be. Aside from the fact that organic manifestations may be discovered when least expected, a thorough physical examination not only convinces a psychoneurotic that his complaints are taken seriously, but serves as an excellent therapeutic measure. It is needless to add that every patient should be undressed. In the case of women one may allow sufficient draping to pay the necessary tribute to modesty. When a complete examination is not altogether possible on the first examination, the following, at least, should be done: The pupillary reflexes should be tested for, the fundi examined, the deep reflexes tested, the heart listened to and the blood pressure taken. Analysis of the urine and a blood Wassermann test are measures of simple routine.

GENERAL INTELLIGENCE, MENTAL LEVEL AND THE PSYCHONEUROSES

BY DAVID WECHSLER, PH. D.

Psychoneurotics may be regarded as individuals who for divers reasons are unable to adapt their instinctive drives to the ordinary pursuits of every day life or to make those necessary emotional adjustments which its exigencies demand. Whatever one's theories as to the etiology of the neuroses, the fact is that the difficulties of the neurotic seem to be primarily related to disturbances or defects in his emotional and instinctual organization. However, it does not follow, as is often and seemingly assumed by those who have adopted this view, that these aspects of the individual's mental life are the only ones which show significant deviations from the normal.

We have said seemingly assumed, because the view is not so much encountered in direct statement as by inferential assertion. Thus in reading case histories, one frequently comes upon the remark that the patient was of normal or

even superior intelligence, and only rarely that he was below average intellectual endowment; and one might gather from such histories alone that the neurotics are mentally an average or even superior group. What is perhaps merely intended is some notation to the effect that the individual's intellectual status contributed little to the understanding of the neuroses; and that is true in many cases. But, on the other hand, it happens also to be true, as we shall presently see, that the intelligence of the psychoneurotic, far from being superior, is in most cases considerably below that of normal individuals. Psychologic researches have definitely shown that the neuroses reveal themselves not only in disturbances of the patient's instinctive and emotional organization, but in a very characteristic lowering of his intellectual level. They have furthermore revealed that it may be different in different types of neuroses. For instance, the intelligence of the hysteric is on the whole noticeably lower than that of most of the other neurotic groups. Again it has been found that this lowering of intellectual level does not manifest itself equally along the various abilities by which general intelligence is measured, the psychoneurotic deviating from the normal but little, for instance, as regards rote memory, but markedly as regards ability to follow directions, and so on.

Differences such as these have suggested the possibility of some definite connection between psychoneuroses and intelligence level as well as the use of various mental tests for differential diagnoses. Indeed some psychologists have already seized upon these facts to propose anew some modified intellectual theory of the neuroses. But while the notion of intellectual hierarchy is far from being established, and its value in understanding the neuroses even more dubious, the measurable differences of general intelligence and special disabilities remain. The results of a number of studies show quite conclusively that the intellectual level of psychoneurotics is lower than that of normal individuals of corresponding social

and cultural status, and while we cannot at this moment say whether the lowered mental level is the result of the neurosis or whether conversely an individual is more susceptible to a neurosis because of his lower level of intelligence, the facts themselves are of considerable interest, and as we shall show below not without some practical value in the differential diagnosis of certain borderline cases.

Interpretation of the intellectual deviations of the psychoneurotic will depend in a measure upon our notion as to what constitutes general intelligence. Accordingly, before taking up the question of the manner and degree to which the psychoneurotic differs from the normal as regards mental ability, it is important to be clear in one's mind as to what the term general intelligence is intended to convey, as well as to have some acquaintance with the various psychometric tests by which this general function has ostensibly been measured.

We may begin by admitting at the outset that there is no universally accepted abstract definition of intelligence. But having made that admission, it may be asserted that psychologists have pretty well agreed on a working definition of it, a definition which enables them to measure general intelligence, whatever that may be. It is of course worded differently by different authors, but they all, or nearly all, agree to this extent: that general intelligence involves native capacity to learn and ability to apply what is learned in solving novel situations. More generally it is summed up by a statement to the effect that intelligence is the "faculty of adapting oneself to circumstances," (Binet) or "the general capacity of an individual consciously to adjust his thinking to new requirements." (Stern.) In brief, it is the ability first to perceive a new situation and then to handle it successfully.

The question, of course, is how can one actually estimate or measure this ability in a particular case. The answer is really not so difficult, that is not so difficult since Alfred Binet showed the way by leaving off theoretical speculation and

proceeded instead to measure concretely the actual capacities of normal individuals.

Binet's central idea was that the best way of getting an estimate of an individual's intelligence is to find out what he can do and compare his ability with that of other people doing the same sort of thing. Naturally there first had to be some standard of comparison, and Binet hit upon the brilliant idea of using as the standard the average performance of the average individual. The next step was to choose the right kind of tasks by which to measure a person's abilities, because it was a question whether an individual's performance in any one field was a fair sample of what he could do if tested along other lines. Again, Binet did not try to answer the question with theoretic arguments, but set himself about to solve the problem by getting together a large number of mental tasks involving different mental functions, such as memory, comprehension, reasoning ability, and so forth, and actually trying them out. He began by giving these mental tasks, or tests as they have since become known, to a great many children of different ages. He then discovered that at different age levels children were able to do about so much and no more, or, again, that they could pass certain tests with comparative ease and others not at all. For instance, at the age of three an average child can repeat 3 digits, at the age of four 4 digits, at seven 5 digits, and so on; but it is only at the age of seven that it can repeat 3 digits backwards and not before twelve that it can repeat 5 backwards.

In this way Binet found what the average child could be expected to do at different ages, and to facilitate comparisons he devised a method of scoring the tests in terms of months and years. The child's total score he designated as his *mental age*, and the tests were so arranged that the average child made a mental age score equal to his actual or chronological age. Any child that made such a score on the tests, he proposed to call one of average intelligence; if a child's mental

age score was markedly above his actual age he was considered one of superior intelligence; if noticeably below, as a child of low or inferior intelligence; and so on.

Working on the same or similar principles, psychologists have since extended and perfected the Binet tests available for use with adults; also devised different types of general intelligence tests, as well as others for the measurement of special abilities. It is by the use of these tests that psychologists have arrived at their present notion of intelligence; and while it cannot be said that they have solved the problem as to what does or does not constitute intelligence, they have definitely been able to show how it can be measured. To go into detail as to how this has been achieved is, of course, beyond the scope of this book, but it is of some importance to recall, however briefly, the generalizations to which they have led. For this purpose we may briefly summarize the general conclusions of modern psychology as regards the nature of intellectual capacity, its manner of development, and form of growth.

Intelligence increases from birth till maturity. Like physical growth it is greater in the first than in later years, and as maturity is approached shows smaller and smaller yearly increments. Just at what age intellectual growth may be said to have attained its maximum is not yet definitely determined. Psychologists are now generally agreed that for the average individual, mental growth as measured by mental age stops, or practically stops, somewhere between the fourteenth and sixteenth year. This conclusion is based upon results obtained with psychologic tests. Thus, the mental age of the average recruit in the U. S. Army during the World War was found to be approximately 13.8 years. There are reasons to believe that this figure is somewhat low, but on the other hand, the mental age of sixteen years which was proposed by Terman when he first revised the Binet-Simon tests has been found by most psychologists to be too

high. At all events it is quite certain that the mental age of the average white adult lies somewhere within those limits.

To the lay reader the statement that the mental age of the average adult is only about that of the average fifteen-year-old boy or girl is somewhat of a shock and to a certain extent unbelievable. The reason for this is that it goes contrary to his own common-sense notion as regards the nature of intelligence. Also he is not quite clear what is meant by the term "mental age." The lay notion of intelligence includes the ideas of knowledge and practical success, and as these increase far beyond the age of fifteen one naturally expects that intelligence too should keep on increasing with age. But knowledge and practical success are not the psychologist's criteria for intelligence. It is precisely these arbitrary criteria which he tries to avoid. Instead he wishes to measure something that does not depend upon education or experience, but on native endowment. Just what that thing is or those things are has not as yet been clearly defined, but all definitions of intelligence refer essentially to ability to learn and ability to adapt oneself to new conditions; that is, not knowledge and practical success, but ability to acquire knowledge and ability to cope with experience in a successful way.

Now it has been found that when tests purporting to measure those abilities, or, what is the same, general intelligence, are given to an unselected group of people the average score made by the average adult is about the same as that made by the average fifteen-year-old boy or girl. In the Binet-Simon scale, which forms the standard of comparison for most other intelligence scales, the tests are scored in terms of months and years, as already mentioned, and are further so arranged and selected that the average child of any given age will attain a mental age-rating precisely equivalent to its own chronologic age. Thus, the average child of five tests exactly at 5, that of twelve exactly at 12, and so on. Hence, when the psychologist says that the mentality of the average

adult is about fifteen years he means that the average man or woman would, if tested, make about the same mental age-rating on the Binet-Simon scale of intelligence as the average fifteen-year-old boy or girl. This age is accordingly adopted as the approximate year of intellectual maturity for most people.

There is one more important characteristic of intelligence tests to which we wish to call attention. If the reader will scan the outline of the psychometric examinations, he will note that the tests include quite a variety of mental tasks, involving different mental functions. This will be found to be true of all intelligence scales, and is based upon the supposition, first assumed by Binet and since amply verified by experimental results, that intelligence is not a homogeneous entity but has many aspects which no single test can adequately reveal. That is why psychologists speak of general intelligence and not of intelligence, and why the old psychiatric methods of asking a patient a few questions or giving him a few arithmetical problems to solve were so haphazard and unreliable a means of obtaining any adequate idea of the patient's true capabilities.

Individuals who have approximately the same average or general intelligence may differ as regards their special abilities, but the average individual does not tend to deviate very much from his own general central tendency when tested along different lines. Thus, if an intelligence scale consists of a series of tests measuring differences of memory, ability to handle numbers, speed of association, abstract reasoning, practical judgment, etc., etc., the average normal individual will be found to do a little better in one, worse in another, but, with only occasional exception, will not deviate far from his mean performance. Psychologists speak of such performance as showing normal *range* or *scatter*. Atypical individuals, on the other hand, tend to show much irregularity of performance and very wide scatter. Thus in dementia precox we find

individuals doing very well on tests calling for language ability (for instance, passing the vocabulary test in year XVIII) but poorly on those involving practical judgment (for instance, failing on the ball and field test, year VIII). Again, mental defectives do relatively well on tests calling for rote memory and fall down very badly on those involving sustained concentration or mental control. Thus a defective with a mental age of ten years may easily succeed in repeating 7 digits forwards (a fourteen year test) and find it impossible to repeat 3 digits backward (a seven year test); whereas, the memory span for digits backwards for normal individuals is only one less, or at most two, than for digits forward. Similar discrepancies of performance, though not so extreme, have been found in the case of the psychoneurotics, and it has accordingly been hoped that these tests might be used for the purpose of differential diagnosis.

There are thus three ways in which the psychoneurotic might differ from the normal; viz., as regards mental capacity or in the matter of intellectual level; in variability of performance; and in special disabilities of various mental functions. We shall now take up the results of researches in each of these fields, proceeding to consider them in the order mentioned.

Intellectual Level of the Psychoneurotic.—Special studies on the intelligence of the psychoneurotic are not as numerous as the interest in the subject demands. There are in fact to date only two important ones (in English), those of Hollingworth¹ and Tendler.² Of the two the former is more extensive as well as more significant.

Hollingworth's data comprise an analysis of the intelligence ratings of some 1100 cases taken from the records of the Surgeon General's office of the U. S. Army. The individual records are of American soldiers who had been given psycho-

¹ Hollingworth, H. L., *Psychology of the Functional Neuroses*, N. Y. 1920.

² Tendler, A., *The Mental State of Psychoneurotics*, *Archives of Psychology*, No. 60, March, 1923.

gical tests either prior to or immediately after their admission to the army hospitals, and who had been diagnosed under the various categories presently to be indicated. The data given cover other types of functional disturbances in addition to the psychoneuroses, as well as some organic conditions and cases of mental defect. The table below is an abridged summary of that given by Hollingworth, in which we have omitted categories including less than forty cases (as being insufficient to be reliable) as well as some of the individual (usually organic) groups which are not particularly relevant to our present discussion.

TABLE I

AVERAGE AND MEDIAN MENTAL AGES OF DIFFERENT
DIAGNOSTIC GROUPS

(When tested by Group Survey, Stanford-Binet, Performance, or some combination of these tests)

Diagnosis	Average	Median	No. of cases
Mental defect.....	9.0	8.6	40
Hysteria.....	11.9	11.5	177
Const. psychopathy.....	12.5	11.5	48
Psychoneuroses.....	12.6	12.0	114
Neurasthenia.....	13.0	13.0	83
Epilepsy.....	12.0	10.6	40
Organic nervous.....	14.0	12.3	83

In interpreting these figures, we must of course remember to compare them not with any theoretical norm, but with the average mental age of the U. S. soldier, which, as already mentioned, was found to be 13.8 years. The mental level of the psychoneurotic is thus one to two years below that of the average for the total population. This is approximately the same as found by Tendler for his psychoneurotic group as a whole, though not for the individual categories. He gives the following figures:

TABLE II

Diagnosis	Median mental age	No. of cases
Neurasthenia.....	11.0	13
Psychasthenia.....	12.0	19
Hysteria.....	13.7	18
Normal.....	14.3	31

The difference between the median mental age of normal and Tendler's psychoneurotic groups as a whole is 2.3 years, which is about .5 year greater than found by Hollingworth. This difference, considering the differences in the type of subjects (those of Tendler being civilian clinic patients of both sexes), is well within the expected sampling error. There is however a significant difference as regards the order in which the various subgroups rate amongst themselves, the most marked discrepancy being in the hysteric group. According to Hollingworth they rate the lowest in the psychoneurotic group, whereas Tendler found them to rate highest. There is little doubt however that of the two Hollingworth's hierarchy is the correct one, for, in the first place, it is based on results obtained from a very large number of subjects. Indeed none of Tendler's subgroups contains as many as twenty subjects, and where categories contain as few as 13 cases one cannot trust too much to average values. Tendler is inclined to explain the discrepancy on the basis of difference of motivation in the two groups of subjects, but more probably it is due to errors of sampling. In the second place, the relatively low mental level which Hollingworth found for the hysteric corresponds with general clinical experience, and more particularly with the reports of the medical officers of the British army. Thus MacCurdy¹ found that "the majority of those suffering from anxiety states were officers, while conversion hysterics were generally confined to privates and non-commissioned

¹ Psychiatric Bulletin, 1917.

officers." And again Rivers,¹ reporting a similar observation, remarks, " . . . the private soldier is especially apt to succumb to that form of neuroses which clearly resembles the effect produced by hypnotism and suggestion" (Babinski's concept of hysteria), and that "on the other hand the officer is especially liable to anxiety hysteria." If the British officer differed from the British soldier in intellectual level as the American officer did from the American soldier, we may expect that he showed a similar superiority of intelligence as revealed by the U. S. army tests, and accordingly interpret the findings of the British medical men as an indication of the close association between hysteria and relatively low mental level.

The same conclusion is indicated by yet other data made available by Hollingworth's researches. In these instances, the author classified a group of psychoneurotic cases, irrespective of their actual diagnoses, according to type of symptom complained of. In one class he placed all those which gave specific symptoms of a definitely physical type—paralyses, anesthetics, tremors, seizures, stuttering, etc.; in another those in which the complaints were largely subjective—fears, worries, obsessions, anxieties, etc.; and in a third those in whose records mixed symptoms were recorded. He then calculated the median mental age for each group and obtained the results given in Table III, Classes I, II and III, corresponding to those showing largely physical symptoms, mixed physical and subjective, and mainly subjective symptoms, respectively:

TABLE III

Class	Med. M. A.	Av. Dev.	No. of cases
I.	10.9	2.1	86
II.	12.9	2.6	59
III.	14.5	2.0	27

¹ Mental Hygiene, Oct. 1918.

In addition to the above results the researches of Hollingworth revealed yet another very interesting fact, namely, that the distribution of the individual scores of the psychoneurotic (as well as some of the other) groups discloses two modal points. That is to say, there appear to be two points of high frequency or central tendency. There is one mode at the mental level, 11-12, and another, though not so striking a one, at the age, 16-17 years. Such bimodality of distribution, as it is statistically called, generally indicates that we are dealing with two distinct groups. Probably in this case it reveals a selective tendency on the part of the causative mechanism. Psychoneurotics are more predominantly recruited from both ends of the intellectual scale; that is, they are more likely to be individuals either of inferior or superior rather than persons of average intelligence, although on the whole (as indicated by the average for the group) they include more of the former than of the latter. Why this should be so we leave for later interpretation, and now turn to a brief consideration of the other aspects of the mental status of psychoneurotics.

Irregularity of Performance.—We have already remarked on the unevenness of performance on mental tests measuring similar or different psychologic functions, which characterizes certain mental disorders. In the case of Binet-Simon tests, one obtains an estimate of the evenness of an individual's mental growth by the "scatter" or number of year levels which the subject requires in order to complete the examination. The average number for normals is from three to four year levels; in the case of psychotics and epileptics, particularly the latter, the range is considerably increased, amounting at times to as many as six or even seven year levels. Unfortunately, although many Binet tests have been given to psychoneurotics, there are no published comparisons, but our personal experience is that they scatter on the whole more than normals, but less than either psychotics or epileptics.

Another way of measuring irregularity of performance is to compare the variability of the individual from the central tendency of his own group. Such indications of variability are given either by the average or standard deviation or other measure of dispersion. Using the average deviation as measures of variability, both Hollingworth and Tendler found greater variability for the psychoneurotic than the normal although the order of their subgroups was not the same. Compared with other types of mental disorders the neuroses would seem to hold a middle position, that is, psychoneurotics show less variability and irregularity than epileptics and psychotics but more than mental defectives.

Special Disabilities.—If one examines the detailed performances of a group of persons achieving the same rating on any intelligence test, one finds that though they may have made identical scores on the test as a whole they will show considerable individual differences with regard to individual items which go to make up the scale. Some persons will do better on tests calling for language ability, others on those involving reproductive memory, still others in tests on abstract reasoning, and so on. But the average individual does not, except occasionally, deviate very markedly from his own average performance. When a marked deviation in any particular mental function does occur, psychologists speak of it as a special ability or disability. Our interest, then, is to discover whether there are any particular functions in which the psychoneurotic shows special deviations from the norm. We are quite familiar with special deviations in the case of some of the other mental disorders. For instance, it is known from clinical experience that mental defectives do particularly badly on tests involving abstract reasoning, that the parietic has very poor memory, and that the Korsakoff patient shows a special defect for immediate retention. Detailed analysis of the performances of psychoneurotics reveals that they manifest a similar tendency. There are certain types of

tests, certain intellectual capacities, in which they appear to particularly bad advantage.

The tests to which psychoneurotics have been found to respond particularly badly are those involving sustained attention and directed mental effort. Thus Tendler found that among his battery of tests, the following served to differentiate the psychoneurotic from the normal—Hard directions, Memory for forms, Knox Cube, Mixed relations, and the Substitution Test. They did particularly badly on the Hard directions (time score) and the Memory for forms. The latter of these tests consists of a sheet of twenty-five geometric forms which are shown to the subject for brief inspection. After being allowed to study them for 2 minutes he is presented a second sheet with 50 forms on it, 25 of which are new but interspersed in chance order among the original twenty-five. The subject is then asked to mark those which he recognizes as having seen on the first sheet. This is thus a kind of quick learning test, similar to the substitution test only more difficult, and requires more concentrated attention, because of the subjection to distracting (confusing) elements. Now if there is one thing a psychoneurotic cannot do, it is to work under pressure and under distraction, and this test very well brings it out. That the disability is not due to a memory defect is shown by the fact that the psychoneurotic does as well as the normal on the Rote memory test.

The hard directions test (Woodworth and Wells) consists of a printed sheet of 20 directions calling for the insertion of alternate or conditional responses which the subject makes by filling in or crossing out appropriate words, letters, signs, or numbers. The score is then given in terms of the time required to complete the task or the number of correct responses. It is perhaps not without significance that the psychoneurotic fares worse when scored in terms of time required to complete the task than in terms of correct responses, showing again that he cannot be hurried. Tendler also found

that of the three groups of psychoneurotics, the psychasthenic (compulsive neurotic) did poorest, which he thinks is possibly to be associated with his difficulty in making decisions (aboulia).

Hollingsworth, like Tendler, found the psychoneurotics to fall far below normals on the Knox Cube test, as also on another, the Word building test. In the former, the examiner asks the subject to watch carefully as he taps 4 cubes in varying order. The subject is requested to repeat the movements, his score being given in terms of the number of series correctly reproduced. Here again we have a test calling for sustained attention, and as before find the psychoneurotic to fail in the task.

It thus appears that there are certain mental functions in which the psychoneurotic shows special disabilities. At this point it is somewhat difficult to describe in other than general terms what these functions are, and may be most accurately indicated by a statement of the particular type of test in which he tends to do badly. Statistical analysis further shows that some of these tests sufficiently differentiate the psychoneurotic from the normal as to be of some diagnostic value, at least in certain types of cases.

If we now summarize the available researches on the mental status of the psychoneurotic, three facts stand out: One, that the intellectual level of psychoneurotics as a group falls significantly below that of the average normal; two, that there are certain mental processes or intellectual operations for which he shows special disabilities; and, three, that the various subgroups of the neuroses tend to arrange themselves in a sort of intellectual hierarchy. The evidence for the last is somewhat uncertain, but it is a fact that the hysterics, or, at least, those who show conversion symptoms, have on the average the lowest mental level.

The question that naturally follows is, what light do these facts throw on our understanding of the *causal* mechanisms

of the psychoneuroses. The answer, in the opinion of the writer, notwithstanding the conclusions of experimenters from whose works the majority of the above facts have been drawn, is—very little. For, in the first place the facts presented reveal only an *association* between lowered intellectual level and the psychoneuroses, and not a *correlation*, much less a causal connection between them. It may, for instance, be true that a lowered body resistance is generally to be observed in persons taking sick with pneumonia, but that would not prove that low body resistance is the cause of the disease. The cause, as we know, happens to be the pneumococcus. In the second place, there is not only a good deal of overlapping between psychoneurotic and normal intelligence, that is the large incidence of psychoneurotics who reach at least the median score of the normal, but a good percentage who attain scores considerably above the average normal. Indeed, there are a disproportionate number of such cases, as is evidenced by bimodal distribution of intelligence scores among the neurotics. It will be recalled that Hollingworth's data disclosed two modes, or high frequency points, one at about the median of the group (mental age 11-12) and another considerably above the average for normals (mental age 16-17). That is to say, there are a good many psychoneurotics of superior intelligence, and this fact cannot be reconciled with any intellectual theory of the neuroses. Again, upon referring to the table of intelligence ratings (Table I) for different groups one notes there are others, for instance, the group diagnosed as "organic nervous," which have about the same average rating as the psychoneurotics, so that there must obviously be factors other than the intellectual which are responsible for making one a psychoneurotic.

This brings us to the last objection, to the attempted intellectual explanation of the neuroses. The results of the intelligence studies of the psychoneurotic have revealed that on the whole he falls below the average normal. This is a fact.

But from the result itself we cannot say how significant a fact it is, because it was not considered in conjunction with the other facts which characterize the psychoneuroses, namely, the degree of emotional imbalance, disturbance of instinctual drive, and extent of unconscious motivation. Clinical experience however indicates that if we were in a position to measure these factors as we can now measure intelligence, the deviations of the psychoneurotic from the normal along these lines would be considerably greater than in the matter of intelligence. In any case it is quite clear that such explanations as deficiency of selective thinking (Tendler), or reintegration (Hollingworth), however simple or definite, furnish very little effective understanding of the psychoneurotic mechanisms themselves.

We must therefore clearly distinguish between the facts which psychological investigation of the psychoneurotics has revealed and the theories which they have inspired. The former can be of very concrete and practical value to the clinician.

Measurement of an individual's mental capacity may be of value in several ways. The first that suggests itself is in the matter of differential diagnoses, particularly in certain borderline cases. The behaviour of many high grade defectives not infrequently resembles that of the psychoneurotic, and it is of some consequence to determine whether this behaviour is due to mental defect or other non-intellectual factors. Another is in those instances which call for educational adjustment and guidance. This is particularly true in the handling of psychoneurotic children where often the choice of school or the proper type of training will make all the difference between a successful adjustment and a continued problem. Third, the psychoneurotic often presents a problem of vocational adjustment and reëducation, particularly in post-traumatic neuroses, where a knowledge of the individual's general mental level as well as special aptitudes and disabilities

may help considerably. Finally, there is the matter of therapy. It is, for instance, an axiom of psychoanalysis that individuals of low mentality cannot be analyzed. It is therefore of some importance to know beforehand the intellectual level of the patient, this not only in order to obviate fruitless attempts, but also to avoid inevitable errors of direction which ignorance of the patient's abilities has occasionally led analysts to commit. Over and above everything else, in order to sublimate his libido by writing an individual must have some talent for it; and no amount of psychotherapy will make a person an engineer if he has no mechanical and arithmetical ability.

PSYCHOMETRIC TESTS¹

KUHLMANN TESTS

Age, Three Months:

1. Carrying hand or object to mouth: Child shows sufficient motor co-ordination to carry hand or object to mouth, more or less at will, and not merely through random, chance movement.

2. Reaction to sudden sounds: Child reacts to sudden sound with start or wink.

3. Binocular co-ordination: Tested by moving bright object to the left and right in front of the child's face. Passed if there is no inco-ordination, even when the eyes are turned to very extreme positions.

4. Turning eyes to object in marginal field: Child should be able to turn the eyes toward object without turning the head.

5. Winking at an object threatening the eyes: Child should wink at a sudden pass toward the eyes.

¹ This chapter, with few modifications, is taken from my article on the same subject in Wechsler's Text-book of Clinical Neurology, W. B. Saunders Company, Philadelphia, 1927.

Age, Six Months:

1. Balancing head and sitting: Child should be able to sit up indefinitely when supported by a pillow. Also to keep its head balanced most of the time.
2. Turning head toward source of a sound: Child turns head toward sound more or less readily.
3. Opposing thumb in grasping: Child clasps object placed in its hand as well as fingers.
4. Prolonged holding of object placed in hand: Object is held considerably longer than in the usual reflex grasp.
5. Reaching for seen objects: Child reaches successfully toward interesting object dangled before it.

Age, Twelve Months:

1. Sitting and standing: Child should stand up supported for two or three minutes, or stand unsupported for about five seconds.
2. Speech: Child should be able to repeat such words as "dada," "nana," "mama," or give satisfactory evidence of combining two or three syllables with some success.
3. Imitation of movements: Child should be able to imitate such simple movements as shaking a rattle, nodding the head, etc.
4. Marking with a pencil: Child, after being interested and shown, can make simple strokes with a pencil or give evidence of voluntarily attempting to do so.
5. Recognition of objects: Child gives evidence of being able to discriminate between familiar objects, such as a ball, rattle, block, picture, etc., by showing preference in his choice.

Age, Eighteen Months:

1. Drinking: Child can take several swallows from a glass in immediate succession.

2. Feeding with spoon or fork: With food in front of it and a spoon or fork placed in its hand, the average child of eighteen months will make some attempt to feed itself. Any successful effort is sufficient.

3. Speech: Child unmistakably can use such simple words as "mama, baby, doll, yes, no, cat," etc., or understand a simple question without gesture.

4. Recognition of objects in picture: Child shows ability to recognize objects in a large colored picture by interested gaze or an exclamation.

5. Spitting out solids: Child spits out or removes voluntarily things that are distasteful, e.g., a bit of bread soaked in vinegar.

Age, Two Years:

1. Pointing out objects in picture: Child can point out such things as a hat, a man, dog, etc., in response to such question as "Show me the dog," etc.

2. Imitation of simple movements: Child can imitate such simple movements as clapping both hands, putting palms of hands on top of the head, etc.

3. Obeying simple commands: Child responds satisfactorily to such requests as "Catch the ball," "Throw it to me" etc.

4. Copying a circle: Child makes some effort at least to copy a circle that has been shown and reproduces it with partial success.

5. Removal of wrapping from food before eating: Child removes wrapper from candy or bit of sugar before taking it in its mouth.

The Kuhlmann scale continues through year fifteen, but for children of age three and above it is the Stanford revision of the Binet-Simon tests that is generally used in this country. An outline of the latter is given below:

THE STANFORD REVISION OF THE BINET-SIMON TESTS

Age, Three Years:

1. Points to parts of body: Nose, eyes, mouth, hair.
2. Names familiar objects: Key, penny, knife, watch, pencil.
3. Enumerates objects in shown pictures.
4. Gives sex.
5. Gives last name.
6. Repeats 6 to 7 syllable sentence.

Age, Four Years:

1. Compares lines.
2. Discriminates between several simple geometric forms.
3. Counts four pennies.
4. Copies square.
5. Shows comprehension by giving appropriate reply to two out of three of the following questions: (a) What must you do when you are sleepy? (b) What must you do when you are hungry? (c) What must you do when you are cold?
6. Repeats four digits.

Age, Five Years:

1. Compares weights of 3 and 15 grams.
2. Names colors: Red, yellow, blue, green.
3. Makes simple esthetic comparisons.
4. Defines chair, horse, fork, doll, pencil, table, in terms of use or better.
5. Combines successfully a divided triangle.
6. Executes three commissions. Puts key on chair, brings box, shuts door.

Age, Six Years:

1. Distinguishes between right and left.
2. Indicates missing parts in mutilated pictures.

3. Counts 13 pennies.

4. Shows comprehension by answering two of the following three questions correctly. What is the thing to do: (a) If it is raining when you start to school? (b) If you find that your house is on fire? (c) If you are going to some place and miss your car?

5. Names coins: Nickel, penny, quarter, dime.

6. Repeats sentence of 17 to 18 syllables.

Age, Seven Years:

1. Names number of fingers of either and both hands.

2. Describes in satisfactory manner two out of three simple pictures.

3. Repeats five digits.

4. Ties bow-knot. (Model shown.)

5. Gives differences between: (a) Fly and butterfly. (b) Stone and egg. (c) Wood and glass.

6. Copies diamond.

Age, Eight Years:

1. Solves ball and field problem with some degree of planfulness.

2. Counts backward from 20 to 0.

3. Shows comprehension by answering two of the following three questions correctly. What is the thing to do: (a) When you have broken something which belongs to someone else? (b) When you are on your way to school and notice that you are in danger of being tardy? (c) If a playmate hits you without meaning to do it?

4. Denotes similarities between: (a) Wood and coal; (b) Apple and peach; (c) Iron and silver; (d) Ship and automobile.

5. Gives definitions in terms superior to use: (a) Balloon; (b) tiger; (c) football; (d) soldier.

6. Vocabulary, 20 words.

Age, Nine Years:

1. Gives date: Week, month, day of month, year.
2. Arranges the following 5 weights in right order: 15 G., 12 G., 9 G., 6 G., 3 G.
3. Makes change: 10-4; 15-12; 25-4.
4. Repeats four digits backward.
5. Makes sentence of three given words: (a) Boy, river, ball; (b) work, money, men; (c) desert, rivers, lakes.
6. Furnishes three rhymes for each word: (a) Day: (b) mill; (c) spring.

Age, Ten Years:

1. Vocabulary, 30 words.
2. Detects absurdities in impossible situations.
3. Reproduces designs from memory.
4. Reads and reports correctly contents of short paragraph.
5. Shows comprehension by answering two out of three questions correctly: (a) What ought you to say when someone asks your opinion about a person you do not know very well? (b) What ought you to do before undertaking (beginning) something very important? (c) Why should we judge a person more by his actions than by his words?
6. Names sixty words in three minutes.

Age, Twelve Years:

1. Vocabulary, 40 words.
2. Gives meaning of three out of five abstract words: (a) Pity; (b) revenge; (c) charity; (d) envy; (e) justice.
3. Solves ball and field problem by superior plan.
4. Rearranges dissected sentences.
5. Interprets at least in part a number of fables.
6. Repeats five digits backward.
7. Interprets pictures.
8. Gives similarities: (a) Snake, cow, sparrow; (b) book, teacher, newspaper; (c) wool, cotton, leather; (d) knife-blade, penny, piece of wire; (e) rose, potato, tree.

Age, Fourteen Years:

1. Vocabulary, 50 words.
2. Passes induction test.
3. Gives main differences between a president and a king.
4. Answers correctly a number of problematic questions.
5. Solves a number of problems in arithmetical reasoning.
6. Solves problems about clocks.

Age, Sixteen Years:

1. Vocabulary, 65 words.
2. Interprets successfully most of the fables presented in year XII.
3. Gives difference between abstract words: (a) Laziness and idleness; (b) evolution and revolution; (c) poverty and misery; (d) character and reputation.
4. Solves problems of the enclosed boxes.
5. Repeats 6 digits backward.
6. Grasps construction of a code and shows this by writing a simple phrase in code with same out of sight.

Age, Eighteen Years:

1. Vocabulary, 75 words.
2. Solves Binet paper-cutting test.
3. Repeats 8 digits forward.
4. Reproduces thought of abstract passage just read.
5. Repeats 7 digits backward.
6. Solves within five minutes each, two of the following three ingenuity tests: (a) "A mother sent her boy to the river to get 7 pints of water. She gave him a 3-pint vessel and a 5-pint vessel. Show me how the boy can measure out exactly 7 pints without guessing at the amount. Begin by filling the 5-pint vessel." (b) Same, except that he is given a 5- and 7-pint vessel to get 8. (Begin with 5.) (c) Same, except that 4- and 9-pint vessels are given to get 7. (Begin with 4.)

The average time required to give a complete Stanford-Binet examination is about forty-five minutes. For younger children (three to six years) it is somewhat less; for older ones (twelve years and over) and adults often considerably more.

In testing a child it is not necessary to go through the entire scale. The rule is to continue up the scale through the year level at which all the tests are failed and to go down the scale through the year level where all tests are passed. The average number of year levels embraced in testing a normal child is three. Four may not infrequently be required; when five or more are required an abnormal or psychopathic disposition may be suspected. The tests are scored by allowing the subject full credit for all tests in the year levels below which he has passed all the tests, and adding two months for every additional test passed in years III to X, three months for every test passed in year XII, four in year XIV, five in year XVI, and six in year XVIII. The total score in years and months constitutes the subject's mental age.

Mental age in itself, while it gives an absolute measure of mental development, does not, of course, tell us anything of the relative brightness or dullness of the individual tested, unless we take into consideration his chronologic age. Thus, a mental age of nine years and two months for a child of nine and a half years would represent average normal intelligence; achieved by a child of six, unusually precocious mental development; attained by an adult it would classify him as definitely feeble-minded. It is therefore necessary to interpret mental age in its relation to the actual age of the subject. A convenient way of doing this is by calculating what is known as the *Intelligence Quotient* (*I. Q.*). The intelligence quotient is the ratio obtained by dividing the subject's mental age by his actual age, thus:

$$I. Q. = \frac{\text{Mental age}}{\text{Chronological age}} \cdot$$
 It is usually expressed by a whole number.

The great advantage of the I. Q. is that it enables us, first, to compare the intellectual endowment of different individuals irrespective of their ages, and, second, that it furnishes an index of brightness which permanently defines the individual mentally, because it has been found that a person's I. Q. remains approximately constant.

For practical purposes it is of course necessary to know what a particular I. Q. signifies. According to Terman the various I. Q.'s may be interpreted as follows:

TABLE IV

Range in I. Q.	Classification
Above 140.....	"Near" genius
120-140.....	Very superior intelligence
110-120.....	Superior intelligence
90-110.....	Normal, or average intelligence
80-90.....	Dull
70-80.....	Borderline deficiency
Below 70.....	Definitely feeble-minded

A more detailed classification employing the more familiar neurologic terminology is that of Kuhlmann:

TABLE V

Range in I. Q.	Classification
0-24.....	Idiots
25-49.....	Imbeciles
50-74.....	Morons
75-84.....	Borderline
85-94.....	Dull
95-104.....	Average
105-114.....	Bright
115-124.....	Very bright
125-149.....	Superior
150-174.....	Very superior
175 and over.....	Precocious

The following short tests which can very easily be given will often serve clinical purposes, as they have been found to correlate very highly with general intelligence as measured by the Binet-Simon tests.

The Seguin (or Goddard) Form Board.—This test is particularly good for detecting feeble-mindedness and is very effective with young children. The test measures the time required by a subject to replace ten wooden blocks of various shapes and dimensions into the recesses of a small board from which they were cut out. The blocks are placed in front of the subject in three piles, and he is asked to put them in their right places just as fast as he can. He is given three trials, and the time for each trial is noted. The subject's time for his best trial constitutes his score on the test. A measure of the subject's intelligence is had by comparing his score with that of the average child of his own age and with the norms for other ages.¹ The manner in which the person approaches the task as well as the time required for its completion are of value in "sizing up" the individual.

The Substitution Test.—This is a learning test. At the top of a page are printed five simple geometric forms, each with an inscribed number. These forms are to be associated with their inscribed numbers (1-5), and serve as a key. Below the key are printed a series of unmarked forms. The subject's task consists of filling in the various forms with their corresponding numbers as shown in the key. His score is the time it takes him to mark fifty forms.

Both of the tests are best used with young children, that is, up to the age of ten or eleven, or with individuals not likely to have a higher mental age. About the eleventh year the following two tests will be found more reliable.

The Symbol-digit Test.—This is like the substitution test just described, only more difficult. Instead of five forms there are nine in the key, and the figures are more complicated. The subject is required to fill in various squares with numbers corresponding to the figures in the key. He is allowed five minutes to mark as many as he can, and his score is the number

¹ The age norms for this and the substitution test will be found in "A Scale of Performance Tests," by Pintner and Patterson.

of squares correctly filled in per minute, that is, the total score divided by five.

TABLE VI

1. Gown	26. Mars
2. Tap	27. Mosaic
3. Scorch	28. Bewail
4. Puddle	29. Priceless
5. Envelope	30. Disproportionate
6. Rule	31. Tolerate
7. Health	32. Artless
8. Eyelash	33. Depradation
9. Copper	34. Lotus
10. Curse	35. Frustrate
11. Pork	36. Harpy
12. Outward	37. Flaunt
13. Southern	38. Ochre
14. Lecture	39. Milksop
15. Dungeon	40. Incrustation
16. Skill	41. Retroactive
17. Ramble	42. Ambergris
18. Civil	43. Achromatic
19. Insure	44. Perfunctory
20. Nerve	45. Casuistry
21. Juggler	46. Piscatorial
22. Regard	47. Sudorific
23. Stave	48. Parterre
24. Brunette	49. Shagreen
25. Hysterics	50. Complot

The Vocabulary Test.—Contrary to the layman's expectation, this is one of the best tests of intelligence; in fact, it correlates more highly with mental age than any other single test on the Binet-Simon scale. The test consists of asking the subject to define a series of 100 words arranged in an approximate order of difficulty and noting the number of words correctly defined. An abbreviated form of the Terman list, which is the most commonly used in this country, is given in Table VI. In scoring the responses elegance of definition is disregarded; any correct meaning is acceptable. In presenting the list it is only necessary to continue until the

subject has missed on five successive words. With the abbreviated list the subject's score is the number of words correctly defined times two. Table VII gives the age norms for native white children. Obviously in the case of foreigners or illiterates the vocabulary test cannot be used. The same is true of the Binet-Simon scale as a whole, and a host of other "paper" intelligence tests are now used, e.g., the Army Alpha or the Otis Intelligence tests.

TABLE VII
VOCABULARY TEST

(Age norms)													
Age.....	6	7	8	9	10	11	12	13	14	15	16	Superior	Adult
No.....	7	13	18	23	30	35	41	46	51	56	62		73

To avoid the language limitation of various intelligence examinations which require the use or understanding of English a number of so-called performance tests have been devised. The one most commonly used in the United States is the Pintner-Patterson Performance Scale. The tests consist for the most part of tasks involving manual manipulations or the comprehension of pictorial situations, such as form boards, picture completion series, and the like. The tasks are given to the subject one after another, and the excellence of the performances is measured either in terms of the time required for their completion or the number of errors made. Standard score norms for the various ages make it possible to obtain mental age ratings similar to those obtained with the Binet-Simon tests, with which they have in fact been found to correlate to a fairly high degree. It happens, however, not infrequently that a person who does well on a Binet test will do poorly on a performance, and vice versa.

In addition to knowing a patient's intellectual status, the neurologist is often interested in ascertaining something about the subject's special mental disabilities. This is particularly true in the case of memory. One of the most useful tests in

this field is that of memory span for digits. Having prepared a series of digits of various lengths (ordinarily from 3 to 8 digits), the patient is asked to repeat each series immediately after presentation. The digits should be read at the rate of about one per second and without grouping. If a patient misses on any series, he is given two additional trials on another series of the same length. The patient's score is the largest number of digits he can repeat without error. The auditory memory span for digits at different ages is given in Table VIII.

TABLE VIII
AUDITORY MEMORY SPAN FOR DIGITS

	(Median scores)													
Age.....	3	4	5	6	7	8	9	10	11	12	14	Adult		
Number repeated.....	3	4	4	4	5	5	5	6	6	6	7	7		

Another ability or disability in which the neurologist is often interested is that of eye-hand co-ordination. A simple means of measuring this is the tapping test. The particular one suggested here requires the patient to tap once in each of a number of $\frac{3}{8}$ -inch squares as quickly as he can. A sheet of paper with 150 of such ruled squares is placed before the patient and he is asked to put one dot into each of them, beginning at the upper left-hand corner, and doing one row after another until told to stop. Time allowed is thirty seconds. Two trials are given, and the number of squares correctly tapped constitutes the subject's score. The median

TABLE IX
TAPPING TEST

	(Median scores)															
	(Number of squares properly marked)															
Age.....	7	8	9	10	11	12	13	14	15	16	Adult					
Number right {	Boys...	44	50	56	62	67	71	75	80	82	85	93				
	Girls...	47	53	60	70	76	77	81	86	89	89	90				

scores for the various chronologic ages are given in Table IX. The reader should note that there are different norms for boys and for girls.

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